Manitoba

Annual Report 2001 - 2002

Sustainable Development Innovations Fund

Text: Includes 10% Post-Consumer Waste

103-01072/

MINISTER OF CONSERVATION

Legislative Building
Winnipeg, Manitoba, CANADA
R3C 0V8

The Honourable Peter M. Liba, C.M.
Lieutenant Governor of Manitoba
Government House
Winnipeg, Manitoba

Your Honour:

I am pleased to present you with the Annual Report of the Sustainable Development Innovations Fund for the period of April 1, 2001 to March 31, 2002.

Yours truly,

Oscar Lathlin
Minister

Manitoba

Conservation Pollution Prevention

123 Main Street, Suite 160
Winnipeg MB R3C 1A5
CANADA

The Honourable Oscar Lathlin
Minister of Conservation
333 Legislative Building
Winnipeg MB R3C 0V8

Dear Sir:

It is my pleasure to present the Annual Report of the Sustainable Development Innovations Fund for the fiscal year 2001 – 2002.

Respectfully submitted,

Laurie Streich
A/Director

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PREFACE

Organization of Report

The format of the 2001/2002 Annual Report is similar to previous Annual Reports in that funded projects are presented by category and program areas. All funded projects are administered by Manitoba Conservation.

Projects are listed in the following categories and program areas:
Open Priority Program Areas:

- Eco-tourism
- Ecosystem Conservation
- Environmental Technology Innovation and Demonstration
- Northern Environmental Issues
- Regional Waste Management
- Sustainable Agricultural Practices
- Sustainable Community Development
- Understanding Our Environment
- Understanding Our Environment/Climate Change
- Water

Broad Allocations:

- Environmental Youth Corps
- Manitoba Climate Change Action Fund
- Manitoba Southwest (Agro) Woodlot Program
- Manitoba Orphan Mine Site Assessment Program
- Manitoba Orphan Mine Site Rehabilitation Program
- Waste Reduction and Pollution Prevention Fund

Purpose

The Sustainable Development Innovations Fund was created in October 1989 to provide financial assistance towards development, implementation and promotion of environmental innovation and sustainable development projects. The fund was continued under *The Sustainable Development Act*, proclaimed July 1, 1998.

The SDIF provides funding for the development, implementation and promotion of environmental innovation and sustainable development projects delivered by local governments, industry, community and youth groups, Aboriginal organizations, and First Nation communities.

Projects qualifying for support must:

- address one or more of the priority areas;
- demonstrate measurable progress towards achieving one or more of the Fund's objectives;
- promote a sustainable approach, include an educational and awareness component, have clear environmental benefits, and take into account benefits to the community and the economy;
- be environmentally and ecologically sound;
- involve youth where possible;
- adhere to a realistic budget and use appropriate resources to conduct the project;
- have a distinct start and finish, and be implemented in a timely fashion;
- have written support from partners, including financial contributions, in-kind project support and/or technical expertise;
- conduct project activities in Manitoba or be of benefit to Manitoba; and
- have a clear plan for future use, sharing, or replication.

Ineligible applications and funding requests include:

- projects that will result in proprietary knowledge and being held exclusively by the grant recipient;
- applications for debt financing or cost recovery purposes;
- purchase of playground and recreational equipment;
- purchase of real property, including land, buildings or vehicles;
- ongoing administration and established operational budgets;
- business development start-up costs – consideration may be given to projects that can clearly indicate that the initiative is a demonstration and/or a pilot project; and
- initiatives that need to be undertaken as a result of a government order, such as removal of petroleum distribution systems, investigations, and remediation.

Source of Revenue

Revenue for the Fund is derived from an environmental protection tax on glass liquor bottles and disposable diapers and the provincial sales tax on the environmental levies for beverage containers, tires and lubricating oil products.

Process

The Pollution Prevention (P2) Branch of Manitoba Conservation administers the Sustainable Development Innovations Fund with the cooperation of provincial government departments. Proposals submitted for funding consideration are evaluated against the SDIF criteria by provincial staff. The evaluations are compiled and summarized and then submitted for review to the SDIF Advisory Review Committee, which is comprised of representatives from provincial government departments. The Advisory Committee reviews the proposals and the evaluations and makes funding recommendations to the Minister of Conservation. The Minister of Conservation has delegated approval authority for projects receiving funding of $25,000 or less. Projects to be awarded funding in excess of $25,000 are subject to Treasury Board approval.

Communication

The Sustainable Development Innovations Fund is promoted through the following activities:

- Public presentations
- Manitoba Conservation web site – http://www.susdev.gov.mb.ca
- Community events, trade shows, exhibitions
- Ministerial announcement of funded projects
- News releases
- Acknowledgement in publications, printed material, and signage of funded projects
- Listing in Funding Directories
- Provincial government offices and staff
- Word of mouth

Sixty-one new projects and six broad allocations were approved for funding in fiscal year 2001/2002, expending a total of $2,742,047.54. Ten projects were carried over from previous fiscal years, expending a total of $123,786.58 in 2001/2002. A total amount of $2,865,834.12 was expended against a total of $3,150,000.00. Presented below is a summary of project expenditures falling under the two categories.

OPEN PRIORITY PROGRAM AREAS

Eco-tourism:

A total of $14,000.00 was expended in 2001/2002 for one project described in the eco-tourism category. The projects approved under this category are initiatives that address ecosystem preservation, public education and economic opportunities through tourism with a priority on rural and northern communities.

Ecosystem Conservation:

A total amount of $155,102.84 was expended in 2001/2002 for ten projects in the ecosystem category. The objectives of this category are to conserve resources, preserve and maintain urban forests and ecosystems and rehabilitate and revitalize degraded areas.

Environmental Technology Innovation and Demonstration:

A total of $103,500.00 was expended in 2001/2002 for four projects in the environmental technology innovation and demonstration category. Projects that fall within this category include feasibility studies, research and development of new processes, environmental technology demonstrations, and special projects, such as strategic studies relating to industrial sectors.

Northern Community Development and Environmental Issues:

There were no projects funded during the 2001/2002 fiscal year in this category. Projects in this category should focus on the enhancement of the environment and sustainable economic development activities of northern and remote communities, particularly Aboriginal communities.

Regional Waste Management:

There were no projects funded during the 2001/2002 fiscal year in the regional waste management category. The objectives of this category are to develop and enhance waste transfer stations with the goal of minimizing environmental risk from landfill waste.

Sustainable Agricultural Practices:

A total of $243,240.00 was expended during the 2001/2002 fiscal year for eleven projects in the sustainable agricultural practices category. Projects that fall within this category include research, demonstration projects, and feasibility studies on agricultural practices that protect the environment and that will assist in diversifying Manitoba's agricultural sector.

Sustainable Community Development:

A total amount of $87,601.72 was expended during the 2001/2002 fiscal year for six projects in the sustainable community development category. Sustainable community development includes eco-efficiency initiatives, environmental stewardship, capacity building mechanisms, and inner city revitalization, with an emphasis on partnerships with Aboriginal peoples and youth.

Understanding Our Environment:

A total of $213,121.61 was expended during the 2001/2002 fiscal year for seventeen projects in this category. Projects that fit into this category focus on education and awareness activities, training, research, seminars and forums.

Understanding Our Environment/Climate Change:

A total of $164,500.00 was expended during the 2001/2002 fiscal year for six projects in this category. Projects that fit within this category focus on public education and outreach to increase awareness of Manitobans of the potential impacts of climate change, potential methods of reducing the emissions of climate change gases, and initiating potential adaptation practices.

Water:

A total amount of $134,755.00 was expended during the 2000/2001 fiscal year for six projects in the water category. Projects in this category include initiatives that protect water quality, promote wise and efficient use of water, and conserve water.

BROAD ALLOCATIONS

Environmental Youth Corps:

A total of $157,996.03 was expended during the 2001/2002 fiscal year for thirty-seven projects funded through the Environmental Youth Corps (EYC). The EYC supports projects throughout Manitoba that include water quality, waste minimization, protection of flora and fauna, rehabilitation and conservation of the natural environment, wildlife conservation and habitat preservation.

Manitoba Climate Change Action Fund:

A total of $247,340.00 was expended during the 2001/2002 fiscal year for ten projects funded through the Manitoba Climate Change Action Fund (MCCAF). The priority areas within MCCAF include education and outreach, impacts and adaptation, technical innovation and energy efficiency.

Manitoba Habitat Heritage Corporation Southwest (Agro) Woodlot Program

A total of $312,400.00 was expended during the 2001/2002 fiscal year for this program managed by the Manitoba Habitat Heritage Corporation (MHHC) Southwest Woodlot Program. This program was established to encourage private landowners in southwestern Manitoba to use Agro-forestry and woodlot management practices that diversify farm income and maintain wildlife habitat.

Manitoba Orphan Mine Site Assessment Program

A total of $93,229.84 was expended by the Department of Conservation during the 2001/2002 fiscal year to undertake two independent assessments of identified orphan mine sites and adjacent environment to characterize and determine the management strategy to protect the environment and residents.

Manitoba Orphan Mine Site Rehabilitation Program:

A total of $288,430.74 was expended by Manitoba Industry, Trade and Mines during the 2001/2002 fiscal year to carry out rehabilitation measures at orphan mine sites in northern Manitoba.

Waste Reduction and Pollution Prevention (WRAPP) Fund:

A total of $526,829.76 was expended during the 2001/2002 fiscal year for thirty-two projects funded through the Waste Reduction and Pollution Prevention (WRAPP) Fund. The priority areas within the WRAPP Fund include composting, construction and demolition (C&D) waste management, green procurement, institutional waste reduction, integrated waste management, pollution prevention, promotion and education, and regional recycling.

PRÉFACE

Structure du rapport

La structure du Rapport annuel de 2001-2002 est semblable à celle des précédents, en ce que les projets financés sont présentés par catégorie et domaine de programmes. Tous les projets financés sont administrés par Conservation Manitoba.

Les projets sont présentés dans les catégories et domaines de programmes suivants :
Domaines de programmes prioritaires :

- Écotourisme
- Conservation des écosystèmes
- Innovation et démonstration de technologie environnementale
- L'environnement nordique
- Gestion régionale des déchets
- Pratiques agricoles durables
- Développement durable des collectivités
- Comprendre notre environnement
- Comprendre notre environnement – Changement climatique
- Eau

Catégorie d'attribution générale :

- Brigades des jeunes environnementalistes
- Fonds d'action pour le changement climatique du Manitoba
- Programme de protection des terrains boisés du Manitoba (offert dans le sud-ouest de la province)
- Programme d'évaluation des mines abandonnées du Manitoba
- Programme de remise en état des mines abandonnées du Manitoba
- Fonds pour la réduction du volume des déchets et la prévention de la pollution

Objet

Le Fonds des innovations de développement durable a été créé en octobre 1989 afin de fournir de l'aide financière au développement, à la mise en œuvre et à la promotion de projets d'innovation environnementale et de développement durable. Ce fonds a été prorogé en vertu de la *Loi sur le développement durable*, promulguée le 1er juillet 1998.

Le Fonds verse des subventions pour l'élaboration, la mise en œuvre et la promotion de projets d'innovation et de développement durable dans le domaine de l'environnement réalisés par des administrations locales, des industries, des groupes communautaires ou de jeunes, des organismes autochtones et des communautés des Premières nations.

Pour être admissible à ce soutien, tout projet doit présenter les caractéristiques suivantes :

- correspondre à un ou plusieurs des domaines prioritaires;
- faire état de progrès mesurables vers la réalisation d'un ou plusieurs des objectifs du Fonds;
- promouvoir une optique durable, comprendre un volet de sensibilisation et d'éducation, présenter des avantages manifestes pour l'environnement, et tenir compte des avantages pour la collectivité et l'économie;
- respecter l'environnement;
- faire appel aux jeunes lorsque c'est possible;
- respecter un budget réaliste et recourir à des ressources appropriées pour sa réalisation;
- comporter un début et une fin bien définis, et se mettre en œuvre au moment qui convient;
- obtenir l'appui écrit de tous les partenaires, notamment en ce qui concerne les contributions financières, un appui non financier ou de l'expertise technique pour le projet;
- être mené au Manitoba ou être bénéfique à cette province;

- comporter un plan d'action concret quant à son utilisation, sa diffusion ou sa répétition dans l'avenir.

Demandes d'inscription et demandes de financement non admissibles :
- les projets qui aboutiront à l'acquisition d'un savoir-faire privatif détenu exclusivement par le bénéficiaire de la subvention;
- les demandes formulées à des fins de financement par emprunt ou de recouvrement de coût;
- l'achat d'équipement récréatif ou destiné à des terrains de jeux;
- l'achat de biens immobiliers (terrains, bâtiments) ou de véhicules;
- les frais d'administration permanents et les budgets de fonctionnement ou d'opérations établis;
- les demandes visant à financer des frais de démarrage d'entreprise – les projets indiquant clairement que l'initiative est une démonstration ou un projet pilote pourraient être considérés;
- les projets qui doivent être mis en œuvre à la suite d'un ordre émis par le gouvernement, comme l'élimination de réseaux de distribution du pétrole, des études et des travaux de remise en état.

Source de revenu

Les revenus du Fonds proviennent d'une taxe pour la protection de l'environnement imposée aux bouteilles d'alcool en verre et aux couches jetables; et de la taxe de vente provinciale sur les cotisations environnementales perçues sur les contenants de boisson, les pneus et les huiles lubrifiantes.

Processus

La Direction de la prévention de la pollution (P2) de Conservation Manitoba gère le Fonds des innovations de développement durable en collaboration avec les ministères du gouvernement provincial. Le personnel de la Province évalue les demandes de financement de projets en fonction des critères du Fonds. Les évaluations sont compilées et résumées avant d'être présentées au comité consultatif d'examen du Fonds des innovations de développement durable. Ce comité, constitué de représentants des ministères provinciaux, examine les projets et les évaluations, puis formule des recommandations au ministre de la Conservation en ce qui concerne le financement. Le ministre de la Conservation dispose d'un pouvoir délégué d'approbation pour les projets dont le financement ne dépasse pas 25 000 $. Les projets destinés à recevoir un financement supérieur à 25 000 $ sont soumis à l'approbation du Conseil du Trésor.

Communications

La promotion du Fonds des innovations de développement durable est assurée par les activités suivantes :

- présentation d'exposés;
- site Web de Conservation Manitoba – http://www.susdev.gov.mb.ca;
- activités communautaires, foires commerciales, expositions;
- annonce par le Ministère des projets financés;
- communiqués de presse;
- remerciements dans les publications, documents imprimés, et annonce des projets financés;
- inscription dans les répertoires de financement;
- bureaux et personnel du gouvernement provincial;
- bouche à oreille.

Au cours de l'exercice 2001-2002, soixante et un nouveaux projets et six attributions générales ont été approuvés, à raison de 2 742 047,54 $. Dix projets ont été reportés depuis les exercices précédents et représentent un total de 123 786,58 $ en 2001-2002. Sur un total de 3 150 000 $, la somme de 2 865 834,12 $ a été dépensée. Ci-dessous figure un sommaire des dépenses des projets répartis dans les deux catégories.

DOMAINES DE PROGRAMMES PRIORITAIRES

Écotourisme :

En 2001-2002, la somme totale de 14 000 $ a été dépensée pour un projet décrit dans la catégorie de l'écotourisme. Les projets approuvés dans cette catégorie sont des initiatives ayant trait à la préservation des écosystèmes, à l'éducation du public et aux débouchés économiques par la voie du tourisme, les collectivités rurales et nordiques constituant une priorité.

Conservation des écosystèmes :

La somme totale de 155 102,84 $ a été dépensée en 2001-2002 pour 10 projets s'inscrivant dans la catégorie des écosystèmes. Les objectifs de cette catégorie consistent à conserver les ressources, à préserver et à entretenir les forêts et les écosystèmes urbains, ainsi qu'à remettre en état et à revitaliser les zones détériorées.

Innovation et démonstration de technologie environnementale :

Au cours de l'exercice 2001-2002, la somme totale de 103 500 $ a été dépensée pour quatre projets appartenant à la catégorie d'innovation et de démonstration de technologie environnementale. Les projets qui s'inscrivent dans cette catégorie comprennent, entre autres, des études de faisabilité, des travaux de recherche et développement de nouveaux produits et procédés, des démonstrations de technologie environnementale, et des projets spéciaux tels que des études stratégiques correspondant à divers secteurs industriels.

L'environnement et le développement communautaire du Nord :

Aucun projet n'a été financé au cours de l'exercice 2001-2002 dans cette catégorie. Les projets de cette catégorie devraient refléter la mise en valeur de l'environnement et les activités de développement économique durable des collectivités nordiques et éloignées, en accordant priorité aux communautés autochtones.

Gestion régionale des déchets :

Aucun projet de la catégorie de la gestion régionale des déchets n'a été financé au cours de l'exercice 2001-2002. Les objectifs de cette catégorie consistent à développer et à améliorer des stations de transfert des déchets en vue de minimiser les risques environnementaux causés par les déchets des décharges.

Pratiques agricoles durables :

En 2001-2002, la somme de 243 240 $ a été dépensée pour onze projets de la catégorie des pratiques agricoles durables. Les projets appartenant à cette catégorie comprennent, entre autres, des recherches, des projets de démonstration et des études de faisabilité sur les pratiques agricoles qui protègent l'environnement et qui contribueront à diversifier le secteur agricole du Manitoba.

Développement durable des collectivités :

Au cours de l'exercice financier 2001-2002, la somme de 87 601,72 $ a été dépensée pour six projets relevant de la catégorie du développement durable des collectivités. Les projets ayant trait au développement communautaire durable comprennent les initiatives d'éco-efficacité, la bonne gestion de l'environnement, des mécanismes de renforcement des capacités et une revitalisation des centres-villes, l'accent étant mis sur les partenariats avec les peuples autochtones et les jeunes.

Comprendre notre environnement :

La somme totale de 213 121,61 $ a été dépensée au cours de l'exercice 2001-2002 pour dix-sept projets de cette catégorie. Les projets qui s'inscrivent dans cette catégorie sont axés sur des activités d'éducation et de sensibilisation, de formation ou de recherche, et sur l'organisation de colloques et de forums.

Comprendre notre environnement – Changement climatique :

En 2001-2002, la somme de 164 500 $ a été dépensée pour six projets de cette catégorie. Les projets entrant dans cette catégorie portent principalement sur l'éducation et la sensibilisation afin de renseigner la population du Manitoba au sujet des effets potentiels des changements climatiques, sur des méthodes potentielles de réduction des gaz à effet de serre et sur des initiatives d'adaptation potentielles.

Eau :

Au cours de l'exercice 2001-2002, la somme de 134 755 $ a été dépensée pour six projets relevant de la catégorie de l'eau. Ces projets comprennent, entre autres, des initiatives de protection de la qualité de l'eau, de promotion d'une consommation efficiente et intelligente des ressources hydriques, et de conservation des ressources en eau.

CATÉGORIE D'ATTRIBUTION GÉNÉRALE

Brigade des jeunes environnementalistes :

Au cours de l'exercice financier 2001-2002, la somme de 157 996,03 $ a été dépensée pour trente-sept projets relevant de la Brigade des jeunes environnementalistes (BJE). La Brigade est présente un peu partout au Manitoba et soutient des projets de conservation de la qualité de l'eau, de réduction des déchets, de protection de la flore et de la faune, de restauration et de conservation des milieux naturels, de conservation des espèces sauvages et des habitats naturels.

Fonds d'action sur le changement climatique du Manitoba :

En 2001-2002, la somme de 247 340 $ a été accordée à dix projets par le biais du Fonds d'action pour le changement climatique du Manitoba. Les domaines prioritaires de ce Fonds d'action sont l'éducation et la sensibilisation, les effets et l'adaptation, les innovations techniques et l'efficacité énergétique.

Programme de protection des terrains boisés du sud-ouest du Manitoba géré par la Société protectrice du patrimoine écologique du Manitoba

La somme de 312 400 $ a été versée en 2001-2002 à ce programme géré par la Société protectrice du patrimoine écologique du Manitoba. Le programme a été mis sur pied afin d'encourager les propriétaires fonciers privés du sud-ouest de la province à employer des pratiques de gestion agroforestière et de gestion des terrains boisés qui diversifient les revenus agricoles et qui conservent les habitats naturels.

Programme d'évaluation des mines abandonnées du Manitoba :

Au cours de l'exercice 2001-2002, la somme de 93 229,84 $ a été dépensée par Conservation Manitoba pour la réalisation de deux évaluations indépendantes de mines abandonnées et du milieu environnant afin de définir et de mettre au point une stratégie de gestion visant à protéger l'environnement et les résidents.

Programme de remise en état des mines abandonnées du Manitoba :

La somme de 288 430,74 $ a été dépensée au cours de l'exercice 2001-2002 par Industrie, Commerce et Mines Manitoba afin de mettre en œuvre des mesures de remise en état de mines abandonnées dans le Nord du Manitoba.

Fonds pour la réduction du volume des déchets et la prévention de la pollution :

Pour l'exercice financier 2001-2002, la somme de 526 829,76 $ a été dépensée pour trente-deux projets financés par le Fonds pour la réduction du volume des déchets et la prévention de la pollution. Les domaines prioritaires de ce fonds sont le compostage, la gestion des déchets de construction et de démolition, l'approvisionnement écologique, la réduction du volume des déchets au niveau des collectivités, la gestion intégrée des déchets, la prévention de la pollution, la promotion et l'éducation, et le recyclage à l'échelle régionale.

Table 1: Summary of Projects by Category

Project Categories	Number of Projects Allocated Funding in 2001/2002	Amount Expended
Open Priority Program Areas:		
Eco-tourism	1	$14,000.00
Ecosystem Conservation	10	$155,102.84
Environmental Technology Innovation and Demonstration	4	$103,500.00
Northern Environmental Issues	0	$0.00
Regional Waste Management	0	$0.00
Sustainable Agricultural Practices	11	$243,240.00
Sustainable Community Development	6	$87,601.72
Understanding Our Environment	17	$213,121.61
Understanding Our Environment/Climate Change	6	$164,500.00
Water	6	$134,755.00
Broad Allocations: * - Environmental Youth Corps (EYC) - Manitoba Climate Change Action Fund (MCCAF) - Manitoba Habitat Heritage Corporation Southwest Woodlot Program - Manitoba Orphan Mine Site Assessment Program - Manitoba Orphan Mine Site Rehabilitation Program - Waste Reduction and Pollution Prevention Fund (WRAPP)	6	$1,626,226.37
Total for New Projects	67	$2,742,047.54
Projects Carried Over into 2001/2002	10	$123,786.58

* Each Broad Allocation is counted as one project under the SDIF. Additional information on the Broad Allocations is contained within this report.

ECO-TOURISM

PROJECTS ALLOCATED FUNDING

DURING THE 2001/2002 FISCAL YEAR

Number of Projects: 1

Total Amount Expended: $14,000.00

Project Name	Total Expended
Millennium Trail	$14,000.00

ECO-TOURISM

DETAILED LISTING OF PROJECTS ALLOCATED

FUNDING DURING THE 2001/2002 FISCAL YEAR

MILLENNIUM TRAIL

Proponents Are: City of Thompson, Department of Recreation, Parks and Culture Millennium Trail Committee

Date Approved: March 7, 2002
Total Amount Approved: $14,000.00
Total Amount Expended: $14,000.00

Summary:

A grant in the amount of $14,000.00 was approved March 7, 2002 to support printing and installation of interpretive signage, design and printing of brochures and edu-kits, for a trail in the boreal forest surrounding the City of Thompson. It is hoped this trail will become an eco-tourist attraction and the self-guiding interpretive trail will educate visitors and locals about the plants and animals of the boreal forest as well as providing education on ecosystems. An edu-kit will be distributed to educators with a wide range of nature activities that can be conducted while visiting the trail or as follow-up in the classroom. Interpretive signage along the trail will educate visitors on topics such as the shaping of the north by glaciation, the boreal forest ecosystem, the history of the Burntwood River, as it pertains to Aboriginal migration, the geological composition of the area, the fur trade and the generation of hydro-electric power.

ECOSYSTEM CONSERVATION

PROJECTS ALLOCATED FUNDING

DURING THE 2001/2002 FISCAL YEAR

Number of Projects: 10

Total Amount Expended: $155,102.84

Project Name	Total Expended
Community Tree Guard	$20,000.00
Control of Dutch Elm Disease and Reforestation of The Fort Garry Forest	$25,000.00
Development of Detailed Landscape and Vegetation Maps of Netley-Libau Marsh	$12,000.00
Grant's Lake Conservation Group Dugout Project	$20,000.00
Green Project 2002	$22,300.00
Manitoba's Zebra Mussel Activities	$3,052.84
Morris School Envirothon Team Green Project	$5,000.00
Perceptions of Change: Livestock Grazing on Forest Pastures in Riding Mountain Biosphere Reserve	$22,550.00
Pipestone Creek Riparian Conservation Project	$15,200.00
Survey of Rare Plant Species in Eastern Manitoba, Phase II	$10,000.00

ECOSYSTEM CONSERVATION

DETAILED LISTING OF PROJECTS ALLOCATED

FUNDING DURING THE 2001/2002 FISCAL YEAR

COMMUNITY TREE GUARD PROGRAM

Proponents Are: Coalition to Save the Elms, Manitoba Inc.
Date Approved: October 10, 2001
Total Amount Approved: $20,000.00
Total Amount Expended: $20,000.00

Summary:

A grant in the amount of $25,000.00 was approved October 10, 2001 for a program to recruit and train a core of community-based volunteers that will promote the care of the urban forest, raise awareness about the management of cankerworms. Volunteers will assist in coordinating community-wide activities to preserve and protect trees from cankerworm infestations by using a basic mechanical management method, tree banding. Volunteers will educate homeowners on the care of trees in general, and organize homeowners to get together and have their boulevard and private trees banded. The proponent will promote urban forest preservation materials, hold workshops on tree care, provide training and coordinate the banding with the core of volunteers. The Program intends to increase community involvement and awareness in the care and preservation of urban trees by disseminating informational and educational brochures that will encourage more community action. Over the long-term, it is intended that this program will reduce or eliminate threats to tree health.

CONTROL OF DUTCH ELM DISEASE AND REFORESTATION OF THE FORT GARRY FOREST

Proponents Are: The Wildewood Club
Date Approved: July 5, 2001
Total Amount Approved: $25,000.00
Total Amount Expended: $25,000.00

Summary:

A grant in the amount of $25,000.00 was approved July 5, 2001 to prune, remove and burn all Dutch Elm diseased trees and replace them with healthier, hardier trees to improve the state of an urban forest. The project will benefit the wildlife species that inhabit the forested areas, as well as reduce the populations of the elm bark beetle and spread of Dutch Elm Disease. The project intends to rehabilitate and revitalize the degraded Fort Garry forest by managing Dutch Elm Disease, as well as implementing measures that will conserve, preserve and maintain the health and biodiversity of the forest. In undertaking this initiative, the Wildewood Club will work in partnership with the City of Winnipeg forester and a forestry consultant.

DEVELOPMENT OF DETAILED LANDSCAPE AND VEGETATION MAPS OF NETLEY-LIBAU MARSH

Proponents Are: Ducks Unlimited Canada/University of Manitoba Delta Marsh Field Station/Netley Marsh Waterfowl Association
Date Approved: July 5, 2001
Total Amount Approved: $12,000.00
Total Amount Expended: $12,000.00

Summary:

A grant in the amount of $12,000.00 was approved July 5, 2001 to develop geographically accurate landscape and vegetation maps of Netley-Libau Marsh. Ducks Unlimited, the University of Manitoba, Delta Marsh Field Station and Netley Marsh Waterfowl Foundation will work jointly on this project. Netley-Libau Marsh, a degraded Manitoba natural resource is located at the south shore of Lake Winnipeg and is one of the largest freshwater coastal wetlands in Manitoba. The marsh is also recognized internationally as a major habitat for nesting, staging and molting waterfowl. The creation of maps for evaluating the current state of the marsh is considered to be the first step in the rehabilitation process of the marsh. Its ecosystem has been degraded for various reasons, such as the introduction of purple loosestrife and common carp. Other factors contributing to its threatened ecological integrity include alterations in water level and erosion of uplands that formerly divided the marsh into smaller units. Once maps are produced, they will benefit all stakeholders of the marsh as it will serve as an aid for the development of conservation strategies and be used for wildlife census, habitat conservation, general wetland research, education and awareness and for recreation and navigation purposes.

GRANT'S LAKE CONSERVATION GROUP DUGOUT PROJECT

Proponents Are: Grant's Lake Conservation Group
Date Approved: October 10, 2001
Total Amount Approved: $20,000.00
Total Amount Expended: $20,000.00

Summary:

A grant in the amount of $20,000.00 was approved October 10, 2001 to create small "wetlands" for the purpose of restoring and enhancing habitat for wildlife. Wetlands were created by enhancing low lying marginal areas with diking and water control to improve their function and provide habitat for nesting birds and create a drinking supply for other wildlife. These dugouts were created on properties within the municipality with the consent of the landowners. These dugouts should slow runoff, help prevent flooding and prevent erosion, thus resulting in a cost saving to governments. It is intended that once created, the wetlands will assist in slowing down run-off, prevent erosion, and because wetlands release water slowly, provide cleaner water and prevent flooding, while creating habitat for wildlife. Once the wetlands are constructed, buffer zones will be created with vegetative cover.

GREEN PROJECT 2002

Proponents Are:	The Green Project Committee, Flin Flon School Division No. 3
Date Approved:	March 7, 2002
Total Amount Approved:	$22,300.00
Total Amount Expended:	$22,300.00

Summary:

A grant in the amount of $22,300.00 was approved March 7, 2002 to rehabilitate areas in and around the northern Town of Flin Flon that have been degraded due to past industrial activities. Participation of a large number of local residents, including students and Aboriginal peoples, will promote a communal feeling of responsibility for the environment. The proponents propose to install signage to educate residents and visitors about the project. The proponents will use community volunteers and material and financial support from their partners to apply crushed limestone to at least five hectares during each of the remaining three years of their initial five-year plan. This method was tested and proven in Sudbury and most of the barren, industrially degraded areas should be restored to "normal" northern Manitoba forest.

MANITOBA'S ZEBRA MUSSEL ACTIVITIES

Proponents Are:	Manitoba Conservation
Date Approved:	July 5, 2001
Total Amount Approved:	$5,971.81
Total Amount Expended:	$3,052.84
Total Amount Projected:	$2,918.97 (2002/2003)

Summary:

A grant of $5,971.81 was approved July 5, 2001 to bring the total 2001/2002 allocation for this project to $19,277.33. Manitoba Conservation has continued to undertake activities to assist in slowing down the eventual movement of zebra mussels into Manitoba waters. Funds are used in support of communications and education programs needed to slow the westward movement of the zebra mussel into Manitoba, and to support communication and education programs to ensure that the industrial and municipal water-use sectors are prepared for the eventual arrival of zebra mussels in Manitoba.

MORRIS SCHOOL ENVIROTHON TEAM GREEN PROJECT

Proponents Are: Morris School Envirothon Team
Date Approved: October 10, 2001
Total Amount Approved: $5,000.00
Total Amount Expended: $5,000.00

Summary:

A grant in the amount of $5,000.00 was approved October 10, 2001 to landscape a sheltered area on the school grounds making it accessible to special needs students in the Life Skills area, as well as middle and senior high students and staff. The intent of this initiative is to create a safe accessible green space for the youths and families of the community, as well as provide an opportunity to connect the community to the local environment. It is proposed that the schoolyard will be created into a park-like setting with picnic tables, benches, gardens and bird feeders. By undertaking this initiative, it is intended to create a viable habitat that will increase the biodiversity of the area by attracting butterflies and birds, as well as to create an outdoor classroom setting.

PERCEPTIONS OF CHANGE: LIVESTOCK GRAZING ON FOREST PASTURES IN RIDING MOUNTAIN BIOSPHERE RESERVE

Proponents Are: University of Manitoba, Department of Botany
Date Approved: March 7, 2002
Total Amount Approved: $22,550.00
Total Amount Expended: $22,550.00

Summary:

A grant in the amount of $22,550.00 was approved March 7, 2002 to examine the impacts of livestock grazing in the Riding Mountain Biosphere Reserve. The project will integrate quantitative vegetation surveys with local knowledge about the environment held by long-time residents of the study area. There are two components to this project: a botanical survey of the forests in the Biosphere Reserve and interviews with specific landowners regarding their land management goals to gain insight into local values placed on the land. As a sub-component to the ecological description of the forest sites, the proponent will conduct a germination study of the seed bank from these sites to analyze past vegetation distributions and possible future vegetation communities of local forest fragments. The integration of the two components of this project will provide a better understanding of some of the social and environmental dynamics of the study region.

PIPESTONE CREEK RIPARIAN CONSERVATION PROJECT

Proponents Are:	West Souris River Conservation District
Date Approved:	November 21, 2001
Total Amount Approved:	$15,200.00
Total Amount Expended:	$15,200.00

Summary:

A grant in the amount of $15,200.00 was approved November 21, 2001 to conduct a pilot project to assess the degree of difficulty and cost effectiveness of removing dead American Elm trees from approximately three miles of Pipestone Creek. The project also intends to determine the feasibility of improving riparian areas affected by Dutch Elm Disease. In areas where the Dutch Elm Disease programs are not possible, American Elms are quickly being eradicated, particularly in riparian areas along creeks and rivers. While the natural cycle of tree decomposition is valuable to an ecosystem, the Dutch Elm disease has accelerated this rate. The effect is that as elms die, the soil-holding and anchoring capabilities of their roots diminish and as a result, trees often fall into the waterway causing bank failure, increased sediment loads, and damage and high maintenance costs to downstream infrastructure. The West Souris Conservation District intends to revegetate the areas where there is bank failure and the removal of the diseased trees may allow the saplings to grow unaffected by the disease, and in the long-term, increase bank stability and provide stream cover.

SURVEY OF RARE PLANT SPECIES IN EASTERN MANITOBA, PHASE II

Proponents Are:	Native Orchid Conservation Inc.
Date Approved:	March 21, 2002
Total Amount Approved:	$10,000.00
Total Amount Expended:	$10,000.00

Summary:

A grant in the amount of $10,000.00 was approved March 21, 2002 to support the second phase of a three-year project to locate and document data on the occurrence of rare plant species found on Crown Lands in Southeast Manitoba including the timber sales area around and east of Ste. Anne and Belair Forest Provincial Park. The Conservation Data Centre will be provided with documentation of the locations of significant areas for mapping. Provincial forestry staff will be provided with information to integrate this information into their forestry management plans and Premier Horticulture to aid in development of peat harvesting plans. First Nation's people in Eastern Manitoba will be consulted about this survey and included on a regular basis particularly concerning plants used for medicinal and ceremonial purposes. The members of this group will help to educate the general public on the importance of conservation of rare plant species in Manitoba.

ENVIRONMENTAL TECHNOLOGY INNOVATION AND DEMONSTRATION

PROJECTS ALLOCATED FUNDING

DURING THE 2001/2002 FISCAL YEAR

Number of Projects: 4

Total Amount Expended: $103,500.00

Project Name	Total Expended
Investigations on the Applications of Electronic Nose Technology to Identification and Measurement of Malodors	$10,000.00
Manitoba Consumer Electronic Products Stewardship Research and Demonstration Project	$50,000.00
Renewable and Alternative Energy Production Opportunity Assessment	$25,000.00
Research Project to Determine the Effectiveness of an Integrated Community-Based Mosquito Control Program, Phase II	$18,500.00

ENVIRONMENTAL TECHNOLOGY INNOVATION AND DEMONSTRATION

DETAILED LISTING OF PROJECTS ALLOCATED

FUNDING DURING THE 2001/2002 FISCAL YEAR

INVESTIGATIONS ON THE APPLICATIONS OF ELECTRONIC NOSE TECHNOLOGY TO IDENTIFICATION AND MEASUREMENT OF MALODORS

Proponents Are: University of Manitoba, Department of Biosystems Engineering
Date Approved: March 21, 2002
Total Amount Approved: $10,000.00
Total Amount Expended: $10,000.00

Summary:

A grant in the amount of $10,000.00 was approved March 21, 2002 to evaluate the applications of the Alpha MOS Fox 3000 electronic nose (e-nose) for measurement of odours from a variety of sources and to correlate the e-nose measurement with other measures of odour quality. The electronic nose, one of only three in Canada, was purchased through the University, industrial funding (Palliser Furniture, Ltd. and TetrES Consultants Inc.) and government funding (Manitoba Livestock Manure Management Initiative). The e-nose will provide a unique opportunity to explore the applications that are most appropriate and useful for agricultural and industrial development in Manitoba through studies on the effects of these sources of air and water pollution. This project will focus on air pollution from agricultural production and industrial manufacturing in two areas: comparisons of measurement of swine odour using the e-nose to a dynamic dilution olfactometer and a selected/trained sensory panel; and measurement and identification of VOC (volatile organic compound) emissions from the finishes used in production lines in Palliser Furniture, Ltd.

MANITOBA CONSUMER ELECTRONIC PRODUCTS STEWARDSHIP RESEARCH AND DEMONSTRATION PROJECT

Proponents Are: Electronic Products Stewardship Organization of Manitoba (EPSOM)
Date Approved: March 7, 2002
Total Amount Approved: $50,000.00
Total Amount Expended: $50,000.00

Summary:

A grant in the amount of $50,000.00 was approved March 7, 2002 to collect, store, analyze, and process 30 – 50 tons of unwanted consumer electronics in the City of Winnipeg. Wherever feasible, the proponent will reuse and/or recycle items collected. Any residual material that cannot be reused or recycled will be disposed of in an environmentally satisfactory manner. The results of the various procedures used to reuse and/or recycle the unwanted electronics will be documented, monitored and the results reported. The project will establish baseline data that may form the basis for a long-term electronics stewardship program in Manitoba. The proponent will ensure that the research and demonstration project is extendable, expandable and/or easily replicated.

RENEWABLE AND ALTERNATIVE ENERGY PRODUCTION OPPORTUNITY ASSESSMENT

Proponents Are: Killarney and District Community Development Corporation
Date Approved: March 21, 2002
Total Amount Approved: $25,000.00
Total Amount Expended: $25,000.00

Summary:

A grant of $25,000.00 was approved March 21, 2002 to identify the opportunity to establish a network of environmentally, socially and financially sustainable business ventures in southwestern Manitoba. The proponents will be researching the state of technology and market readiness for businesses such as ethanol production from straw fibre, wind power electrical energy production, bio-gas to electrical energy generation operations, and ventures such as greenhouses that can derive a competitive advantage from use of heat, steam, and waste water from energy production processes and can be co-located with one of the green energy production ventures. The proponent will also research the state of technology, regulatory and market readiness for the introduction of renewable, green electrical energy.

RESEARCH PROJECT TO DETERMINE THE EFFECTIVENESS OF AN INTEGRATED COMMUNITY-BASED MOSQUITO CONTROL PROGRAM, PHASE II

Proponents Are: University of Manitoba, Natural Resources Institute
Date Approved: March 21, 2002
Total Amount Approved: $18,500.00
Total Amount Expended: $18,500.00

Summary:

A grant in the amount of $18,500.00 was approved March 21, 2002 for the second phase of a two-year project that will assist communities throughout Manitoba by determining the effectiveness of an integrated, community-based approach to controlling mosquitoes that does not rely on chemical pesticides that pose a potential threat to human health. Given the possibility that certain viruses carried by mosquitoes may spread to Manitoba, research into additional programs to control mosquito populations is necessary. The proponent proposes to: collect information and implement an extensive education program informing residents about the steps they can take to eliminate mosquito breeding sites; identify and introduce appropriate natural predators; research and possibly implement other non-toxic techniques; and measure the effectiveness of these initiatives in reducing mosquito populations. The second phase will concentrate on analyzing the data that was collected during the first phase of the project.

SUSTAINABLE AGRICULTURAL PRACTICES

PROJECTS ALLOCATED FUNDING

DURING THE 2001/2002 FISCAL YEAR

Number of Projects: 12

Total Amount Expended: $243,240.00

Project Name	Total Expended
Chip Tire Evaluation as an Aggregate Replacement and Capillary Break in Beef Livestock Facilities	$50,000.00
Conservation Soil Management – Molehill Leveler	$1,500.00
Effect of Root Zone Heating on Germination and Growth in Greenhouses in Manitoba Climate Conditions	$24,740.00
Innovative and Sustainable Practices for the Control of Leafy Spurge in Manitoba	$25,000.00
Investigate McLeod Millings for Ethanol Production	$25,000.00
Landscape Enhancement and Rehabilitation in the Tiger Hills	$20,000.00
Off-Stream Options for Cattle Watering	$12,000.00
Pesticide Free Production Market Development Plan	$25,000.00
Phosphorus Study	$25,000.00
Study of Nutrient Balances in Four Manitoba Municipalities	$25,000.00
Web-Based Extension Education Pasture Management Program for Livestock Producers	$10,000.00

SUSTAINABLE AGRICULTURAL PRACTICES

DETAILED LISTING OF PROJECTS ALLOCATED

FUNDING DURING THE 2001/2002 FISCAL YEAR

CHIP TIRE EVALUATION AS AN AGGREGATE REPLACEMENT AND CAPILLARY BREAK IN BEEF LIVESTOCK FACILITIES

Proponents Are: Interlake Livestock and Forage Improvement Association, Gunton Bull Testing Station
Date Approved: October 10, 2001
Total Amount Approved: $50,000.00
Total Amount Expended: $50,000.00

Summary:

A grant in the amount of $50,000.00 was approved October 10, 2001 to conduct research into using chipped tires instead of gravel in cattle holding pens. Currently, large amounts of clay/gravel fill are required to provide a good strong base and low infiltration rate thus preventing groundwater contamination. In some areas, this large amount of mixture is very expensive and if the research proves successful, the use of chipped tires would be more economical and would decrease the use of non-renewable aggregate sources. The objectives of this project are to evaluate the feasibility of utilizing chipped tires as an aggregate replacement for base stabilization; evaluate the capability of chipped tires and gravel fill to act as a capillary break; compare the effectiveness of chipped tire fill versus gravel fill; measure the volume of runoff from cattle pens over a period of three years or longer; and measure and compare the quality and quantity of leachate collected from the three different pens over a period of three years or longer.

CONSERVATION SOIL MANAGEMENT – MOLEHILL LEVELER

Proponents Are: Tiger Hills Conservation District
Date Approved: November 21, 2001
Total Amount Approved: $1,500.00
Total Amount Expended: $1,500.00

Summary:

A grant in the amount of $1,500.00 was approved November 21, 2001 to support the proponent's program delivery and the purchase of educational promotional materials. The proponent has initiated, as part of its Soil Conservation Program, an equipment project where the proponent purchases and modifies, as needed, equipment for demonstration and hands-on use for local producers. The molehill leveler is a modified Morris 731 that utilizes grader blades mounted on shanks to smooth out mounds, created by moles and other burrowing animals, without destroying burrows or affecting critical wildlife habitat.

EFFECT OF ROOT ZONE HEATING ON GERMINATION AND GROWTH IN GREENHOUSES IN MANITOBA CLIMATE CONDITIONS

Proponents Are: University of Manitoba, Faculty of Agriculture and Food Science, Department of Biosystems Engineering
Date Approved: March 7, 2002
Total Amount Approved: $24,740.00
Total Amount Expended: $24,740.00

Summary:

A grant in the amount of $24,740.00 was approved March 7, 2002 to investigate the effectiveness of heat mats in root zone heating and to estimate the potential reduction in heating costs for greenhouses under Manitoba climate conditions. Traditionally, root heating was achieved by placing hot water (or steam) lines under the surfaces supporting the plants, but this method does not achieve uniform temperature distribution, which causes uneven germination or plant growth. The heat mats being tested are made of solid plastic with embedded heating elements, temperature sensors, and a power controller. In preliminary tests, the heat mats have been shown to provide uniform root zone heating, thus resulting in better plant growth.

INNOVATIVE AND SUSTAINABLE PRACTICES FOR THE CONTROL OF LEAFY SPURGE IN MANITOBA

Proponents Are: Brandon University, Rural Development Institute
Date Approved: March 21, 2002
Total Amount Approved: $25,000.00
Total Amount Expended: $25,000.00

Summary:

A grant in the amount of $25,000.00 was approved March 21, 2002 to create a centre of excellence in research and provide a clearinghouse for the dissemination of knowledge through the Rural Development Institute (RDI) at Brandon University. The objectives of the project are to increase awareness of leafy spurge among the general public, landowners/managers and governments; disseminate accurate information about its extent and impact on the environment, community and economy, through a coordinated effort; provide landowners/managers information from which they can design appropriate programs for control and management of leafy spurge on their properties; enhance and promote research activities and knowledge transfer; and identify current and further potential for research activities and demonstration. These activities will likely result in the development and promotion of innovative, integrated pest management practices for the effective control of leafy spurge.

INVESTIGATE MCLEOD MILLINGS FOR ETHANOL PRODUCTION

Proponents Are: McLeod Harvest Inc.
Date Approved: November 21, 2001
Total Amount Approved: $25,000.00
Total Amount Expended: $25,000.00

Summary:

A grant in the amount of $25,000.00 was approved November 21, 2001 to conduct research into the use of "millings", from the proponent's harvesting system, as feedstock for conversion into ethanol. Once processed, the chaff is referred to as "millings", essentially an agricultural waste product consisting of a mixture of processed chaff, weed seeds, broken or small grain kernels, leaves and other crop residue. It is proposed that the millings obtained from the McLeod Harvest system will have value as a feedstock for ethanol production. Millings will be analyzed for cellulose and lignin content and ethanol yields potential. The intent is to determine the quality and properties of millings as feedstock for ethanol production. Methods for agricultural waste-based ethanol production will be assessed to determine specific areas of ethanol conversion processes and technologies that offer the opportunities for conversion of millings into ethanol. The proponent will also attempt to assess the requirements for siting a Biomass-to-Ethanol Facility in Manitoba. The project is complete and final report is on file.

LANDSCAPE ENHANCEMENT AND REHABILITATION IN THE TIGER HILLS

Proponents Are: St. Alphonse-Bruxelles Soil and Water Management Association
Date Approved: March 7, 2002
Total Amount Approved: $20,000.00
Total Amount Expended: $20,000.00

Summary:

A grant in the amount of $20,000.00 was approved March 7, 2002 to lease/purchase equipment to establish 30 miles of field shelterbelts over a period of ten years and maintain the planted shelterbelts for five years, including the year of planting. The ultimate goal of this project is to increase productivity for local farmers through improved wind control and snow management that can reduce accidents and injury to local and travelling public.

OFF-STREAM OPTIONS FOR CATTLE WATERING

Proponents Are: Intermountain Conservation District
Date Approved: July 5, 2001
Total Amount Approved: $12,000.00
Total Amount Expended: $12,000.00

Summary:

A grant in the amount of $12,000.00 was approved July 5, 2001 to demonstrate various portable off-stream options for cattle watering in the Parkland Region that will assist in protecting water quality, improving pastureland, and protecting riparian and upland wildlife habitat. The project intends to create an opportunity to give landowners and livestock producers the knowledge required to make informed decisions towards adopting a practice that will keep cattle from entering the streams to drink. The traditional practice of cattle having unrestricted access to watering sources has a direct impact on the riparian areas causing erosion of streambanks, destruction of riparian vegetation and decreased capacity of the riparian zone to act as a natural water filtering system for runoff and nutrient pollution. Information on livestock/cattle management options will be provided to livestock producers. It is intended that through increased education and awareness, demonstrations, field trips and workshops, landowners/livestock producers will be able to assess off-watering systems, make informed decisions and be more likely to adopt non-traditional practices that will minimize environmental impact to surface and groundwater quality.

PESTICIDE FREE PRODUCTION MARKET DEVELOPMENT PLAN

Proponents Are: Pesticide Free Production Farmers Co-op Ltd.
Date Approved: March 7, 2002
Total Amount Approved: $25,000.00
Total Amount Expended: $25,000.00

Summary:

A grant in the amount of $25,000.00 was approved March 7, 2002 to assist with a marketing development plan for pesticide free production of crops. The proponent will strive to establish a market for pesticide free products, while at the same time, develop and implement a certification process that will be used to attain and guarantee quality products. It takes three years to become certified. The objectives of this project are to design and implement a program that will measure the interest of potential buyers for Pesticide Free Production; correlate the data gained from the program into a database of prospective buyers; match potential buyers to members of the cooperative that can deliver specified items; develop a marketing strategy that will target those identified in the Pesticide Free Production Canada consumer survey; implement the marketing strategy; and evaluate and modify as necessary. The proponent's ultimate goal is to develop and promote and innovative sustainable crop production system that can provide increased income to farmers while still benefiting the environment.

PHOSPHOROUS STUDY

Proponents Are: Manitoba Livestock Manure Management Initiative
Date Approved: March 7, 2002
Total Amount Approved: $25,000.00
Total Amount Expended: $25,000.00

Summary:

A grant in the amount of $25,000.00 was approved March 7, 2002 towards the University of Manitoba, Department of Soil Science, reviewing and adapting the bodies of existing knowledge on the role and fate of phosphorous in livestock and crop production systems specifically relevant to Manitoba. The phosphorous concentrations in the rivers that drain major watersheds in Manitoba are increasing. Agriculture has been suggested as one contributor to the phosphorous loads. Manure phosphorous has been identified as a significant source of soil phosphorous enrichment in areas of high density of confined livestock operations. Some of this phosphorus may reach important water bodies such as Lake Winnipeg. It is important, therefore to review all pertinent information to clearly identify the knowledge gaps to be addressed in future research efforts and describe what should be done. The study will include identifying the relative magnitude of phosphorous discharged, identifying methods of reducing the production of manure phosphorous, quantifying the risk that the different forms of phosphorous pose to the Manitoba environment, reviewing (extensively) the status of legislation, investigating regulatory strategies and performing case studies.

STUDY OF NUTRIENT BALANCES IN FOUR MANITOBA MUNICIPALITIES

Proponents Are: Manitoba Livestock Manure Management Initiative
Date Approved: March 21, 2002
Total Amount Approved: $25,000.00
Total Amount Expended: $25,000.00

Summary:

A grant in the amount of $25,000.00 was approved March 21, 2002 for a study of the nutrient balance in four municipalities in southern Manitoba. These municipalities represent areas of differing classes of soil and uses such as intensive livestock production or crop production. It is necessary to determine the effect that excessive nutrient additions pose to the Manitoba environment. As well, a strategy is necessary for implementing a minerals accounting procedure in which amount of nutrients entering a field are not allowed to exceed amounts leaving, taking into account the capacity of the ecosystem to safely absorb the nutrients. The study must also analyze the implications regarding implementation of these management strategies including their enforceability, practicality and sufficiency.

WEB-BASED EXTENSION EDUCATION PASTURE MANAGEMENT PROGRAM FOR LIVESTOCK PRODUCERS

Proponents Are:	University of Manitoba, Natural Resources Institute
Date Approved:	March 7, 2002
Total Amount Approved:	$10,000.00
Total Amount Expended:	$10,000.00

Summary:

A grant in the amount of $10,000.00 was approved March 7, 2002 to develop a web-based extension program to communicate to landowners practical, common sense approaches for achieving sustainable pasture management. The website will integrate the tools of agriculture and natural resources management into a practical and communicable set of guidelines for individual landowners to follow when making grazing management decisions. The program will demonstrate how sustainable grazing systems can be integrated with environmental conservation and enhancement practices. This program has the potential to assist landowners to be innovators in their farm community and it is likely that new conservation techniques will emerge as a result of the adoption of new ideas and practices that are shared by farmers involved in the program.

SUSTAINABLE COMMUNITY DEVELOPMENT

PROJECTS ALLOCATED FUNDING

DURING THE 2001/2002 FISCAL YEAR

Number of Projects: 6

Total Amount Expended: $87,601.72

Project Name	Total Expended
Building Sustainable Workforces in Northern First Nations	$25,000.00
Community Based Joint Planning Initiative	$12,500.00
Millennium Community Park Project	$5,000.00
Northern Forest Diversification Centre (NFDC) Pilot Project	$25,000.00
Opaskwayak Cree Nation Youth Beautification Program	$4,952.72
Study of Sustainable Community Economic Development Opportunities	$15,149.00

SUSTAINABLE COMMUNITY DEVELOPMENT

DETAILED LISTING OF PROJECTS ALLOCATED

FUNDING DURING THE 2001/2002 FISCAL YEAR

BUILDING SUSTAINABLE WORKFORCES IN NORTHERN FIRST NATIONS

Proponents Are: MKO (Manitoba Keewatinowi Okimakanak – Manitoba Northern Chiefs)
Date Approved: November 21, 2001
Total Amount Approved: $25,000.00
Total Amount Expended: $25,000.00

Summary:

A grant of in the amount of $25,000.00 was approved November 21, 2001 to further develop and promote the Building Sustainable Workforces initiative and implement a sustainable workforce partnership strategy. This initiative involves a training and education program that will include conducting natural resource inventories with a focus on ecological and environmental sustainability. The initiative seeks to draw together cross-sector teams within the communities to maximize the use of existing budgets on shared development goals focusing on moving the majority of the community's employable adults from welfare recipients into employment and training. Once the initiative is fully implemented and evaluated, it has the potential to build capacity within communities that will lead to efficient and effective management practices over time.

COMMUNITY BASED JOINT PLANNING INITIATIVE

Proponents Are: Hollow Water First Nation
Date Approved: March 21, 2002
Total Amount Approved: $12,500.00
Total Amount Expended: $12,500.00

Summary:

A grant in the amount of $12,500.00 was approved March 21, 2002 to create a resource planning committee to develop strategic plans over the next year and into the future. It will include various members from the Hollow Water First Nation, industry, government and academia. The project will involve members of the community including trappers and youth, Tembec and other individuals/industries/businesses/governments interested in ensuring that the forest will be used for the betterment of all concerned. This project presents an opportunity to establish a process that will address the concerns of the community and have local values incorporated not only into forestry plans but also other developments including mining, hydro and tourism. This model, once developed, can be used by other First Nations within the Province and other parts of Canada.

MILLENNIUM COMMUNITY PARK PROJECT

Proponents Are: Strathmillan School Parent Council
Date Approved: July 5, 2001
Total Amount Approved: $5,000.00
Total Amount Expended: $5,000.00

Summary:

A grant in the amount of $5,000.00 was approved July 5, 2001 to enhance and beautify the Strathmillan School grounds. The intent of this project is to create a safe accessible recreational park for the youth and families of the community, and provide an opportunity to connect the community to the local environment. It is proposed that the grounds will created into a park-like setting with picnic tables, benches, planters and waste receptacles. The proponent will also endeavor to resurface the play area with bark; and landscape the green space with soil, grass and trees.

NORTHERN FOREST DIVERSIFICATION CENTRE (NFDC) PILOT PROJECT

Proponents Are: Keewatin Community College
Date Approved: July 5, 2001
Total Amount Approved: $25,000.00
Total Amount Expended: $25,000.00

Summary:

A grant in the amount of $25,000.00 was approved July 5, 2001 to assist with a pilot project that will demonstrate an innovative economic development model for residents in remote northern communities. The model is based on creating income-generating activities that sustain local culture, enhance self-determination, and reinvest in the community. To this end, non-timber products, and to a lesser degree, eco-tourism will be pursued. The ultimate goal of this project is to create a Northern Forest Diversification Centre.

OPASKWAYAK CREE NATION YOUTH BEAUTIFICATION PROGRAM

Proponents Are: Opaskwayak Cree Nation Youth Centre
Date Approved: July 5, 2001
Total Amount Approved: $4,952.72
Total Amount Expended: $4,952.72

Summary:

A grant in the amount of $4,952.72 was approved July 5, 2001 to carry out a series of beautification projects in the Opaskwayak Cree Nation reserve adjacent to the Town of The Pas. In undertaking this initiative, youth will assisted in various community beautification activities, such as recycling, cleaning the roadsides and parks, planting and gardening in community gardens. The intent of this initiative was that it be operated by Youth for Youth and benefit the community by creating youth employment opportunities, beautifying the community, recycling, promoting tourism, showing community involvement, and developing economic activity.

STUDY OF SUSTAINABLE COMMUNITY ECONOMIC DEVELOPMENT OPPORTUNITIES

Proponents Are: SEED Winnipeg Inc.
Date Approved: March 21, 2002
Total Amount Approved: $15,149.00
Total Amount Expended: $15,149.00

Summary:

A grant in the amount of $15,149.00 was approved March 21, 2002 to conduct pre-feasibility research to investigate environmentally oriented community economic development opportunities in the City of Winnipeg. The research is divided into two stages, the first stage being to conduct a scoping exercize that will focus on identifying general market opportunities that exist in Winnipeg and other urban locations. The second stage will build on the information collected during the first phase emphasizing specific business opportunities and focusing on compiling key information that would be required for more formal feasibility studies in the future. The key objectives of this project are to promote capacity building for inner city residents through their participation in the process of identifying and screening market opportunities and potential business initiatives; develop a list of environmentally oriented market opportunities that are potentially viable in Winnipeg and/or have been successfully implemented in other locations; and prepare a short-list of 5 to 10 opportunities that are identified as having the most potential in the Winnipeg context and compile preliminary information for a pre-feasibility evaluation of the short-listed opportunities. The expansion of economic activity will strengthen the economies of urban neighbourhoods and assist in the important civic priority of the revitalization of the downtown.

UNDERSTANDING OUR ENVIRONMENT

PROJECTS ALLOCATED FUNDING

DURING THE 2001/2002 FISCAL YEAR

Number of Projects: 17

Total Amount Expended: $213,121.61

Project Name	Total Expended
ARCVIEW GIS Schools and Libraries Program	$12,343.00
Conservation Strategies in North American Bear Viewing Areas	$12,000.00
Dams in Canada Book – Universities, Colleges and High Schools	$5,000.00
Energy for a Sustainable Future, an Integrated Curriculum Resource Package	$25,000.00
Engaging Middle Years Students in Ecological Sustainability	$25,000.00
Integrating Multiple Forest Values in Sustainable Forest Management	$25,000.00
International Children's Conference on the Environment 2002	$5,950.00
Joint Envirothon Competition at International Peace Gardens	$20,000.00
Manitoba Youth Round Table for Sustainable Development	$693.61
Rediscovering Local Environment, A Windsor Green Project	$500.00
Rules and Tools for the Prairies: Erosion Control Strategies Conference	$4,760.00
Sila Alangotok: Inuit Observations on Climate Change/Skownan: Our Land Our Future	$2,400.00

Project Name	Total Expended
Tailings in Nopiming Park: Research into Reactions Within Gold Mine Tailings in Manitoba	$25,000.00
Take Pride Winnipeg Mentor Program/Pride Club	$17,600.00
The Global Change Game – Spring 2002 Manitoba Tour	$25,000.00
The History of the Transcona Community Bioreserve – Mural Project	$1,875.00
Wild Plants of Manitoba	$5,000.00

UNDERSTANDING OUR ENVIRONMENT

DETAILED LISTING OF PROJECTS ALLOCATED

FUNDING DURING THE 2001/2002 FISCAL YEAR

ARCVIEW GIS SCHOOLS AND LIBRARIES PROGRAM

Proponents Are:	Turtle River Watershed Conservation District #2
Date Approved:	November 21, 2001
Total Amount Approved:	$12,343.00
Total Amount Expended:	$12,343.00

Summary:

A grant in the amount of $12,343.00 was approved November 21, 2001 to complete a partnership with Environmental Systems Research Institute (ESRI) Inc., Canadian Division, to offer public schools and libraries GIS technology at no cost. The intent is to install this technology in five District schools. The proponent believes this program will benefit students by creating awareness of local and global geography, and refining mathematical and computer skills and enhancing the general curriculum. This Program is a multi-level comprehensive learning experience and is designed for students in Kindergarten through to Grade 12 (Senior 4). Included with the Program, ESRI offers training workshops that introduce educators to ArcView GIS, provides lesson packs and reference materials that make it easy for teachers to use the software in the classroom, along with various other means of support for the Program.

CONSERVATION STRATEGIES IN NORTH AMERICAN BEAR VIEWING AREAS

Proponents Are: University of Waterloo, Department of Recreation and Leisure Studies
Date Approved: July 5, 2001
Total Amount Approved: $12,000.00
Total Amount Expended: $12,000.00

Summary:

A grant in the amount of $12,000.00 was approved July 5, 2001 to conduct research into how management strategies in the Cape Churchill Wildlife Management Area and the McNeil River State Game Sanctuary in Alaska address social demands, such as local sustainability and wildlife-observer expectations, while continuing to protect the polar and brown bear populations and ensure tourist satisfaction. In order to provide a solid understanding of human-wildlife interactions, a comparative analysis approach with participant observation, self-administered questionnaires and interviews will be undertaken. The research proposes to examine human attitudes and values towards bears, the perceived costs and benefits to eco-tourism, and the socio-economic impacts of bear viewing on local and regional communities of indigenous non-native peoples; examine factors that indicate the flow and nature of human and bear interactions; describe the development of bear management strategies and the effectiveness of these strategies in mitigating bear habitat loss; and examine management strategies where impacts on bears can be minimized and bear viewing opportunities maximized. This research is expected to benefit managers, policy makers and eco-tourism operators.

DAMS IN CANADA BOOK – UNIVERSITIES, COLLEGES AND HIGH SCHOOLS

Proponents Are: Canadian Dam Association
Date Approved: November 21, 2001
Total Amount Approved: $5,000.00
Total Amount Expended: $5,000.00

Summary:

A grant in the amount of $5,000.00 was approved November 21, 2001 to support the production of a 400-page book on dams in Canada for distribution to Manitoba universities, colleges and high schools. The book includes mine tailings, hydroelectric, water supply and irrigation dams and will contain text and colour photographs. Currently, there are not many published works on dams, their history, types, environmental issues, or water resources. Although copies were given to the International Commission on Large Dams (ICOLD) Congress registrants in Montreal as part of their registration fee, the proponent requested extra funding from all the provinces so that this book could be distributed to all universities, colleges and high schools in Canada.

ENERGY FOR A SUSTAINABLE FUTURE, AN INTEGRATED CURRICULUM RESOURCE PACKAGE

Proponents Are: Manitoba Teacher's Society
Date Approved: July 5, 2001
Total Amount Approved: $25,000.00
Total Amount Expended: $25,000.00

Summary:

A grant of $25,000.00 was approved July 5, 2001 to undertake phase one of a three-phase initiative to develop an integrated curriculum resource package addressing issues and technologies of alternative and sustainable energy. This initiative, a partnership between a curriculum writing team from Karnatak, India and a team of teachers from Manitoba, intends to develop curriculum resources that could serve students/teachers in both jurisdictions. A variety of resource materials pertaining to sustainable energy (environmental) issues will be collected, and a package will be prepared with a wide variety of sustainable-energy curriculum resources materials developed for pilot testing. Materials will be developed that have a northern, provincial, aboriginal and global focus. The intent is that the curriculum resources developed will support students in learning about, understanding and examining current sustainable energy use including alternatives. The long term goal is to develop an increased awareness among youth about the benefits and costs of using renewable energy as well as the concepts of sustainability in different cultures and ethnic groups, including Aboriginal peoples.

ENGAGING MIDDLE YEARS STUDENTS IN ECOLOGICAL SUSTAINABILITY

Proponents Are: University of Manitoba, Faculty of Education
Date Approved: October 10, 2001
Total Amount Approved: $25,000.00
Total Amount Expended: $25,000.00

Summary:

A grant in the amount of $25,000.00 was approved October 10, 2001 to conduct a research study, towards a doctoral thesis, on education for ecological sustainability and curriculum development processes at the middle years level. The study will be conducted in partnership with Manitoba Education, Training and Youth, John W. Gunn School (in the Transcona School Division) and the Community. The goal of this project is to determine how to integrate "sustainability concepts" into a school curriculum and how that curriculum "plays out" when a teacher attempts to teach in an interdisciplinary manner. The objectives of the project are to document, analyze and interpret how one middle years teacher integrates ecological sustainability into middle years curriculum; understand the extent to which an ecological vision of education fosters within middle years students a deepened sense of their connection to the environment; and understand how students' caregivers perceive and practice sustainability.

INTEGRATING MULTIPLE FOREST VALUES IN SUSTAINABLE FOREST MANAGEMENT

Proponents Are: University of Manitoba, Health, Leisure and Human Performance Institute/Natural Resources Institute
Date Approved: October 10, 2001
Total Amount Approved: $25,000.00
Total Amount Expended: $25,000.00

Summary:

A grant in the amount of $25,000.0 was approved October 10, 2001 to support a three-year project to develop an integrated digital database of Manitoba's forest resources and produce an ecosite scale map of the Province of Manitoba. Development of an ecocide classification and mapping system will assist in determining, measuring and mapping other forest values, such as biodiversity, habitat supply, landscape-level planning, recreational and eco-tourism uses, indigenous uses, aesthetic, cultural and spiritual values. The project will incorporate the development of an ecosite model of the province of Manitoba, development of a series of layers in a GIS database reflecting current abiotic, biotic and cultural features and processes related to the forest ecosite model and identification of significant relations between data layers to produce specific products such as outdoor recreation opportunities and a biodiversity atlas. Integrated forest management requires an integrated data-set that identifies the opportunities, constraints and conflicts associated with the diverse uses and values associated with the forest resource such as sustainable forestry, biodiversity conservation, eco-tourism and recreation opportunities. As an integrated forest management tool, it is anticipated that the model will have the ability to anticipate, prevent and/or mitigate significant economic, environmental and social affects that may result from a variety of forest management actions.

INTERNATIONAL CHILDREN'S CONFERENCE ON THE ENVIRONMENT 2002

Proponents Are: Transcona-Springfield School Division No. 12
Date Approved: March 21, 2002
Total Amount Approved: $5,950.00
Total Amount Expended: $5,950.00

Summary:

A grant in the amount of $5,950.00 was approved March 21, 2002 to assist with the expenses of six students ranging in age from ten to twelve years and two chaperones participating in the International Children's Conference on the Environment 2002 in Victoria, British Columbia. The conference dealt with such important environmental issues as climate change, water, healthy communities/healthy children and resource conservation. This was a once in a lifetime educational opportunity for these students. Children from around the world participated in this conference sharing their views on the environment with one another, and their collective views will be presented to the Johannesburg Summit in 2002. This experience will help these students become informed citizens and build their creative problem-solving skills. The experience will also improve their scientific, ecological and social literacy and commitment to engage in actions necessary for a sustainable future.

JOINT ENVIROTHON COMPETITION AT INTERNATIONAL PEACE GARDENS

Proponents Are: Manitoba Forestry Association
Date Approved: March 7, 2002
Total Amount Approved: $20,000.00
Total Amount Expended: $20,000.00

Summary:

A grant in the amount of $20,000.00 was approved March 7, 2002 to hold a joint Envirothon competition with North Dakota at the International Peace Gardens, May 30 to June 1, 2002. The project's goals were to increase students' awareness of the environment, ecosystems and the natural balance and complexity of these systems; increase students' awareness of the five aspects of the environment, increase awareness about the project and its benefits to the schools; promote the objectives of *Education for a Sustainable Future;* and cover certain topics for the Integration of Sustainability Issues. The students were involved in hands-on activities in projects and discussions with their own team members and members of the competing team. The potential benefits of this program include the knowledge gained by students as they learn from professionals about their environment and take practical information back to their schools and communities.

MANITOBA YOUTH ROUND TABLE FOR SUSTAINABLE DEVELOPMENT

Proponents Are: Manitoba Conservation
Date Approved: February 21, 2001
Total Amount Approved: $25,000.00
Total Amount Expended: $ 693.61

Summary:

A grant in the amount of $25,000.00 was approved February 21, 2001, for allocation in the 2001/2002 fiscal year, to assist the Manitoba Youth Round Table for Sustainable Development with expenses. The Manitoba Youth Round Table was established in February 1996 by the Manitoba Round Table on the Environment and Economy (MRTEE). Young people, between the ages of 16 to 24 years, from all regions of Manitoba with varying backgrounds and expertise are brought together to help forward the principles and guidelines of sustainable development throughout Manitoba's youth. Youth Round Table members sit on their committees, as well as developing and implementing their own youth-oriented initiatives. The Youth Round Table's purpose is to educate young Manitobans in all areas concerning sustainable development and encourage their participation in educational events. It is intended to give young people an opportunity to voice their opinions, concerns and ideas on the use, development and protection of our environment. The unexpended portion of the grant in the amount of $24,306.39 will be carried over to the 2002/2003 fiscal year.

REDISCOVERING LOCAL ENVIRONMENT, A WINDSOR GREEN PROJECT

Proponents Are: Windsor School
Date Approved: July 5, 2001
Total Amount Approved: $500.00
Total Amount Expended: $500.00

Summary:

A grant in the amount of $500.00 was approved July 5, 2001 to support a project that involved compiling data collected from the students' eco-count of the neighbourhood and constructing a "green eco-map" of this data. The eco-count consisted of using community-based maps and eco-inventory lists to document the green environment, including recycling, transportation and living environment. The "green eco-map" is located on the playground hardtop and will be used as material for the science, math and social studies curriculum along with a recreational aspect, as a game element was incorporated into the map. In undertaking this initiative, it was intended that curriculum materials would be enhanced, and the students' and community awareness of, and connection to, the urban ecology strengthened through a participatory process.

RULES AND TOOLS FOR THE PRAIRIES: EROSION CONTROL STRATEGIES CONFERENCE

Proponents Are: Minnedosa Lake Rehabilitation Committee
Date Approved: October 10, 2001
Total Amount Approved: $4,760.00
Total Amount Expended: $4,760.00

Summary:

A grant in the amount of $4,760.00 was approved October 10, 2001 for a two-day conference, in partnership with the International Erosion Control Association (IECA), Northern Plains Chapter, to educate and train participants on federal and provincial regulations, guidelines, and erosion control best management practices. The conference consisted of a one-day indoor instructional seminar and a one-day outdoor workshop to view and participate in erosion control strategies in field locations. The workshop involved a field tour of sites in various stages of completion with an opportunity for participants to engage in "hands on" installation of several erosion control items. Also, participants gained knowledge on how to implement environmentally friendly erosion control technologies and to share this knowledge with other concerned with municipal drainage, promotion of sustainable agriculture, and restoration and protection of natural ecosystems. The project is complete and the final report is on file.

SILA ALANGOTOK: INUIT OBSERVATIONS ON CLIMATE CHANGE/SKOWNAN: OUR LAND OUR FUTURE

Proponents Are: Manitoba Education, Training and Youth
Date Approved: October 10, 2001
Total Amount Approved: $22,250.00
Total Amount Expended: $ 2,400.00

Summary:

A grant in the amount of $22,250.00 was approved October 10, 2001 to produce two videos and teacher's guides for Manitoba students. One video, to be distributed to Grade 10 classes, follows a year-long project to document the problem of Arctic climate change and communicate it to Canadian and international audiences. This video follows the local people onto the land and seas as they perform traditional activities and describe the changes they see taking place. The other video, to be distributed to Grades 7-10 science classes, is a case study of the community of Skownan and an innovative process called Appreciative Inquiry. The International Institute for Sustainable Development (IISD) took this community through this process to learn how Aboriginal people value the lands around them and how this information can be incorporated into provincial land-use and resource management planning. This video will provide students with an opportunity to follow a community through the process and learn how Aboriginal people incorporate these values into sustainable development decision-making. The project is still in process and the remaining $19,850.00 of the grant was carried forward to the 2002/03 fiscal year.

TAILINGS IN NOPIMING PARK: RESEARCH INTO REACTIONS WITHIN GOLD MINE TAILINGS IN MANITOBA

Proponents Are: University of Manitoba, Department of Geological Sciences
Date Approved: March 21, 2002
Total Amount Approved: $25,000.00
Total Amount Expended: $25,000.00

Summary:

A grant in the amount of $25,000.00 was approved March 21, 2002 to conduct a detailed study into the mine tailings from three gold mines in the Rice Lake Archean Greenstone belt. The mineralogical and bacteriological interactions in mine tailings, which produce heavy metal contamination of ground water, continue for decades after deposition. The three gold mines are in close proximity but their tailings have great differences in the degrees of preservation. The Central Manitoba tailings have a high copper content and are acidic after 63 years, producing a barren highly contaminated area. The tailings at Gunner mine are also barren, but have a high pH. In contrast, the neutral tailings from the Ogama-Rockland mine have been revegetated after only 50 years despite having a high level of arsenic. A study of the mine tailings from these three gold mines will help in the prediction of the future preservation of mine tailings being deposited currently in Manitoba.

TAKE PRIDE WINNIPEG MENTOR PROGRAM/PRIDE CLUB

Proponents Are: Take Pride Winnipeg Inc.
Date Approved: March 7, 2002
Total Amount Approved: $17,600.00
Total Amount Expended: $17,600.00

Summary:

A grant in the amount of $17,600.00 was approved March 7, 2002 to support the Take Pride Winnipeg program. One of the two components of this program is the Mentor program, started in 1998, that uses high school mentors to teach elementary school students in grades 4 and 5 about litter and graffiti control, the environment and taking pride in their city. The second component is the Pride Club designed to help Winnipeg citizens to become prouder of living in the city. Three newsletters are printed each year and are sent to elementary schools in the city to help encourage children to become more active in helping Winnipeg become the best city in Canada to live in. The Pride Club has promotional items, fall litter cleanup programs and a mascot, Louie the Lion, who attends events within the City throughout the year and visits elementary classes to spread a message of civic pride and responsibility.

THE GLOBAL CHANGE GAME – SPRING 2002 MANITOBA TOUR

Proponents Are: Global Change Game Inc.
Date Approved: October 10, 2001
Total Amount Approved: $25,000.00
Total Amount Expended: $25,000.00

Summary:

A grant in the amount of $25,000.00 was approved October 10, 2001 to provide Global Change Game workshops and presentations throughout the Province of Manitoba with emphasis on northern and rural communities. The workshops give participants an opportunity to engage in sustainable development decision-making in a hands-on fashion. Although the events and final outcomes of the Game are determined by the priorities and actions of the participants, some of the topics that are routinely included are waste management, energy conservation, evolving sustainable communities, sustainable agricultural practices and water stewardship. For this tour, a new workshop was developed entitled "Climate Change in the Classroom". The Global Change Game provides participants with the opportunity to explore the various connections between the natural environment, the economy and human communities, allowing participants to become more aware of their role as planetary stewards and realize their potential to make a difference in their communities. As an educational tool, the proponent may assist teachers, through access to online teaching and learning resources, as well as provide suggested student projects and assignments that will help to engage students in developing projects and investigations that complement the learning introduced in the workshops.

THE HISTORY OF THE TRANSCONA COMMUNITY BIORESERVE – MURAL PROJECT

Proponents Are: John W. Gunn Middle School
Date Approved: November 21, 2001
Total Amount Approved: $1,875.00
Total Amount Expended: $1,875.00

Summary:

A grant in the amount of $1,875.00 was approved November 21, 2001 to create a moveable mural that depicts the history and subsequent transformation of the 'Bioreserve' from its earliest days to the present. Three periods are depicted: the prairie habitat and settlers period; the development of the Transcona community, C.N.R. and industrial use of the site; and the environmental clean up and naturalization period. The goals of the project are to provide meaningful student and community connections to issues of heritage and sustainable development; merge the disciplines of art, social studies, industrial arts and language arts with sustainable development as the focal point; and celebrate and share a sustainable development success story and the history of Transcona with the community.

WILD PLANTS OF MANITOBA

Proponents Are: Manitoba Naturalists Society, Inc.
Date Approved: March 7, 2002
Total Amount Approved: $5,000.00
Total Amount Expended: $5,000.00

Summary:

A grant in the amount of $5,000.00 was approved March 7, 2002 to support a project to educate and increase awareness about the province's wild flora, its beauty, diversity and use in habitat management. The proponent contracted Tom Reaume, an artist/biologist, on an annual full-time basis to create species' accounts of about 70 wild, vascular, native and introduced plants in Manitoba each year for three years. The artist will locate, draw, measure, describe and identify a selection of Manitoba's wild plants. He will consult with local and distant botanists, as required, to produce a technically sound, well designed, beneficial publication for Manitobans. The species' accounts will be published on a CD that will be sold and distributed to schools, libraries, governments, other agencies and individuals working to sustain the province's biodiversity, through the proponent's office and website. The Royalties will be used to assist the proponent with its various programs.

UNDERSTANDING OUR ENVIRONMENT/ CLIMATE CHANGE

PROJECTS ALLOCATED FUNDING

DURING THE 2001/2002 FISCAL YEAR

Number of Projects: 6

Total Amount Expended: $164,500.00

Project Name	Total Expended
2002 Winnipeg Commuter Challenge	$15,000.00
Feasibility Study: Centre of Excellence for the Role of Carbon Sequestration in Climate Change	$24,500.00
Fort Whyte Centre's Cool School Program	$25,000.00
Greenhouse Gas Reduction Strategy for the City of Winnipeg	$25,000.00
Ground Sourced Heat Pumps on Urban Lots	$25,000.00
Wind Monitoring Project	$50,000.00

UNDERSTANDING OUR ENVIRONMENT/ CLIMATE CHANGE

DETAILED LISTING OF PROJECTS ALLOCATED

FUNDING DURING THE 2001/2002 FISCAL YEAR

2002 WINNIPEG COMMUTER CHALLENGE

Proponents Are:	Resource Conservation Manitoba
Date Approved:	March 7, 2002
Total Amount Approved:	$15,000.00
Total Amount Expended:	$15,000.00

Summary:

A grant of $15,000.00 was approved March 7, 2002 to support the reduction of greenhouse gas emissions through promotion of sustainable transportation. The event highlights the multiple benefits of sustainable transportation, such as cleaner air, less traffic congestion, individual fitness, cost savings, and reduced greenhouse gas emissions. It includes community-based outreach and education activities that will provide information to Winnipeg workplaces to encourage their participation in the Third Annual Winnipeg Commuter Challenge. The Challenge raises awareness of the cost of automobile dependency and of the environmental benefits of the alternatives. It is a one-week event during Environment Week in June that encourages participants to try a new commuting experience to the automobile and have them record their means of travel to work each day during that week. Those workplaces in various size categories having the largest proportion of alternative-mode trips are the winners of the Challenge.

FEASIBILITY STUDY: CENTRE OF EXCELLENCE FOR THE ROLE OF CARBON SEQUESTRATION IN CLIMATE CHANGE

Proponents Are: Economic Development Committee of the Local Government District of Pinawa, Manitoba
Date Approved: March 21, 2002
Total Amount Approved: $24,500.00
Total Amount Expended: $24,500.00

Summary:

A grant in the amount of $24,500.00 was approved March 21, 2002 to conduct a feasibility study on the establishment of a Centre of Excellence in Carbon Sequestration in Pinawa that will serve as coordinating and resource centre for Carbon Sequestration research and monitoring and climate change related credits trading issues. The study will identify the resources, such as staffing, equipment and lab space, required to implement the Centre of Excellence and identify partnerships and include discussion with private companies in the environmental technology sector already part of the Pinawa environmental technology nucleus. The Centre would employ many partnerships including Manitoba Conservation, Manitoba Agriculture and Food, Prairie Farm Rehabilitation Association and explore other partnerships such as Manitoba Hydro, NRCan, Environment Canada and Manitoba Universities and Colleges.

FORT WHYTE CENTRE'S COOL SCHOOL PROGRAM

Proponents Are: Fort Whyte Centre
Date Approved: March 7, 2002
Total Amount Approved: $25,000.00
Total Amount Expended: $25,000.00

Summary:

A grant in the amount of $25,000.00 was approved March 7, 2002 to develop the "Cool School" Program, a partnership between Fort Whyte Centre and the Assiniboine South School Division No. 3 that will build on the previous success of the Centre's exhibits, Climate Change Field Station and school field trip program. The Cool School Program will involve teachers, students and their parents in greenhouse gas awareness and reductions at school and home. The students will learn the science of climate change through specialized guided field trips to the Centre's new climate change exhibits and Climate Change Field Station. The objectives of this program are to increase public understanding of climate change; reduce greenhouse gas emissions or promote their reduction; promote the use of non-greenhouse gas producing energy; increase the public understanding of potential mitigation and/or adaptation strategies; and demonstrate innovative use of new technologies with strong stakeholder support and community involvement.

GREENHOUSE GAS REDUCTION STRATEGY FOR THE CITY OF WINNIPEG

Proponents Are: City of Winnipeg
Date Approved: March 7, 2002
Total Amount Approved: $25,000.00
Total Amount Expended: $25,000.00

Summary:

A grant of $25,000.00 was approved March 7, 2002 to develop a comprehensive cost-effective greenhouse gas reduction strategy for the City of Winnipeg that will address local climate change impacts. The process adopted is based on the Partners for Climate Protection guidelines. The project has three components: a greenhouse gas emissions inventory and forecast (i.e. data collection and estimate growth in emissions for a target year – 2010) with respect to both municipal operations and the community at large; establishing an emissions reduction target for the municipality and community through a consultation process; and developing a local action plan or strategic document outlining policies and measures the City will take to meet emission standards. The plan will involve education and public outreach campaigns and will identify implementation and monitoring plans.

GROUND SOURCED HEAT PUMPS ON URBAN LOTS

Proponents Are: North End Housing Project Inc.
Date Approved: March 21, 2002
Total Amount Approved: $25,000.00
Total Amount Expended: $25,000.00

Summary:

A grant in the amount of $25,000.00 was approved March 21, 2002 to support the evaluation of Ground Sourced Heat Pumps (GSHP) that were installed in four new homes on small infill lots in the north end of Winnipeg. Although GHSP's are not a new technology, the application in the urban area is new, as most of the previous installations have been done in rural areas. Increases in natural gas prices have made the installation of GHSPs, which have significantly higher capital costs than conventional heating systems, more attractive for urban locations. Computer modeling indicates that these heat pumps should be economical; however, there is no concrete data to back this up. Information obtained from this study will be applicable to all new homes built in the urban environment. As well, it will guide future decision making on neighbourhood revitalization efforts for heating systems in new homes to be built in the City of Winnipeg core areas.

WIND MONITORING PROJECT

Proponents Are:	Manitoba Hydro
Date Approved:	March 19, 2002
Total Amount Approved:	$50,000.00
Total Amount Expended:	$50,000.00

Summary:

A grant in the amount of $50,000.00 was approved March 19, 2002 to monitor the wind speed at appropriate heights in ten locations throughout Manitoba, for a period of one year. Manitoba Hydro commissioned a report from Global Energy Concepts (GEC) located in Kirkland, Washington, summarizing costs, performance and technical issues associated with current wind energy technology. GEC reported that the costs of generating power from wind could be economical depending on the nature of the wind at one of these ten possible sites. The report indicates that wind speeds in Manitoba are promising but actual tests to determine best possible sites have never been done. Wind monitoring is a key component in helping determine whether producing wind energy will be economically viable in Manitoba. Manitoba Hydro hired a qualified organization to conduct the wind monitoring.

WATER

PROJECTS ALLOCATED FUNDING

DURING THE 2001/2002 FISCAL YEAR

Number of Projects: 6

Total Amount Expended: $134,755.00

Project Name	Total Expended
Abandoned Well Inventory Project	$10,000.00
Assiniboine Delta Aquifer Environmental Monitoring Program	$24,950.00
Assiniboine South School Division Water Efficiency Project	$24,805.00
Model Development for Red River Basin in Conjunction with US Institute of Agriculture and Trade Policy	$40,000.00
Studies on Occurrence and Cause of Nuisance Algae Growth in Whiteshell Lake	$20,000.00
Winkler Aquifer Management Plan: Education	$15,000.00

WATER

DETAILED LISTING OF PROJECTS ALLOCATED

FUNDING DURING THE 2001/2002 FISCAL YEAR

ABANDONED WELL INVENTORY PROJECT

Proponents Are: Little Saskatchewan River Conservation District
Date Approved: November 21, 2001
Total Amount Approved: $10,000.00
Total Amount Expended: $10,000.00

Summary:

A grant in the amount of $10,000.00 was approved November 21, 2001 to enhance the Conservation District's abandoned well capping and sealing program by developing a record of every well in the district to prevent injury and contamination. In undertaking this initiative, it is intended that a well inventory be developed and an index map of the area be created. The Conservation District proposes to visit each well in the district and assess the stability and productivity of each well. Each well location will be marked with a global position unit to allow technicians to return to the site, if needed. The accurate GIS reference with its index for each well will be stored in a database and may be arranged into maps to assess the aquifers in the area. Once data has been collected, abandoned wells will be assessed and sealed in order of priority, with the intention of every abandoned well eventually being sealed. It is also proposed that public workshops may be held at an abandoned well site, as an educational tool to inform the public and landowners of the benefits of abandoned well capping to prevent contamination of groundwater sources.

ASSINIBOINE DELTA AQUIFER ENVIRONMENTAL MONITORING PROGRAM

Proponents Are: Manitoba Horticulture Productivity Enhancement Centre Inc.
Date Approved: July 5, 2001
Total Amount Approved: $24,950.00
Total Amount Expended: $24,950.00

Summary:

A grant in the amount of $24,950.00 was approved July 5, 2001 to implement an environmental monitoring program for the Assiniboine Delta Aquifer. It is intended that the impacts of irrigation and the intensive crop production on the aquifer will be monitored to ensure the sustainability of the quality of water available from the aquifer. This aquifer is the primary source of water for a good portion of western Manitoba and some of the land in this area is irrigated from the aquifer. The aquifer is unconfined to the surface and a relatively shallow depth of moderately to highly permeable material overlies most of it. This and the relatively intensive potato production in the area result in an increase in potential for ground water contamination.

ASSINIBOINE SOUTH SCHOOL DIVISION WATER EFFICIENCY PILOT

Proponents Are: Assiniboine South School Division No. 3
Date Approved: March 7, 2002
Total Amount Approved: $24,805.00
Total Amount Expended: $24,805.00

Summary:

A grant in the amount of $24,805.00 was approved March 7, 2002 to demonstrate the water saving and fiscal benefits of retrofits and educational programs relating to efficient use of water at a variety of grade levels. The proponent has a formal agreement with Manitoba Hydro to conduct a two-year pilot project to reduce resource use in eighteen facilities within the school division. The proponent has already examined in detail resource usage of electricity, natural gas and solid waste disposal and now wishes to examine water usage and efficiency. The primary goal of this project is to increase resource efficiency while reducing resource costs through low-cost, no-cost initiatives.

MODEL DEVELOPMENT FOR RED RIVER BASIN IN CONJUNCTION WITH US INSTITUTE OF AGRICULTURE AND TRADE POLICY

Proponents Are: Manitoba Conservation, Water Branch
Date Approved: March 7, 2002
Total Amount Approved: $40,000.00
Total Amount Expended: $40,000.00

Summary:

A grant in the amount of $40,000.00 was approved March 7, 2002 to develop a dynamic systems simulation model that can be used to explore natural, economic and social dynamics in the Red River Basin. The project will be carried out in conjunction with the US Institute of Agriculture and Trade Policy. The process and model framework uses newly emerging concepts and techniques that build upon and advance current watershed management concepts. This simulation model will explore alternative policies with stakeholders and decision-makers in the Red River Basin by developing and testing decision strategies within the model and then reflecting upon the consequences. These workshops convene groups of people with a wide variety of backgrounds and are overseen by a core group of investigators with experience in the process and skilled at integrating information. The model development process involves input from and analyses of experts and stakeholders in a series of Adaptive Management Workshops. Available information will be gathered on the current status of ecological, social and economic capital in the Red River Basin.

STUDIES ON OCCURRENCE AND CAUSE OF NUISANCE ALGAE GROWTH IN WHITESHELL LAKE

Proponents Are: University of Manitoba, Delta Marsh Field Station
Date Approved: July 5, 2001
Total Amount Approved: $20,000.00
Total Amount Expended: $20,000.00

Summary:

A grant in the amount of $20,000.00 was approved July 5, 2001 to conduct a three-year research study on the occurrence and cause of a nuisance algae growth in two lakes in the Whiteshell Provincial Park. An increasing occurrence of coarse, blue-black algae growth on the bottom of Betula and White Lakes was identified in the late 1990's. This algae is considered a nuisance, imparts a distinct earthy taste and odor to water and may produce chemicals that constitute a risk to human health. The project will attempt to define the extent of the problem and its underlying causes, as the basis for developing plans to minimize its adverse impacts on recreational use of the area and to avoid possible health effects. The study will determine the extent to which the nuisance algae has spread, the rate of spreading, the chemical composition of the algae, the characteristics of the watershed, and the physical and chemical conditions that favor growth of this algae. The first part of this study involves a reconnaissance survey of the large lakes in the vicinity of the two infected lakes. The second part involves a research program that will focus on those lakes determined from the reconnaissance survey to contain the algae.

WINKLER AQUIFER MANAGEMENT PLAN: EDUCATION

Proponents Are:	Winkler Aquifer Management Plan: Winkler Aquifer Management Advisory Board
Date Approved:	October 10, 2001
Total Amount Approved:	$15,000.00
Total Amount Expended:	$15,000.00

Summary:

A grant in the amount of $15,000.00 was approved October 10, 2001 to facilitate and expand public education and awareness efforts that will assist in the protection of the local aquifer. A public education component will build awareness of the water resource, its importance to the area, and what individuals can do to prevent contamination or degradation of the water quality. Actions undertaken will assist in preserving and enhancing a natural resource, specifically soil and water and will promote agriculture awareness in the farming and non-farming public. The objectives of this project include producing and distributing placemats; developing a power point presentation in cooperation with the local high school; enhancing the Winkler Aquifer display with infrared or Ortho photos and physical and software models of the aquifer area that will allow hands-on participation; developing a Winkler Aquifer website; designing and erecting Winkler Aquifer signage; and using the presentation materials at local fairs and other events. As well, a poster contest targeting grade six children will be used to reinforce the primary message, the importance of the aquifer to local people.

BROAD ALLOCATIONS

PROGRAMS ALLOCATED FUNDING

DURING THE 2001/2002 FISCAL YEAR

Number of Projects: 6

Total Amount Expended: $1,626,226.37

Project Name	Total Expended
Environmental Youth Corps	$157,996.03
Manitoba Climate Change Action Fund	$247,340.00
Manitoba Habitat Heritage Corporation Southwest (Agro) Woodlot Progam	$312,400.00
Manitoba Orphan Mine Site Assessment Program	$93,229.84
Manitoba Orphan Mine Site Rehabilitation Program	$288,430.74
Waste Reduction and Pollution Prevention (WRAPP) Fund	$526,829.76

BROAD ALLOCATIONS

DETAILED LISTING OF PROJECTS ALLOCATED

FUNDING DURING THE 2001/2002 FISCAL YEAR

ENVIRONMENTAL YOUTH CORPS (EYC) PROGRAM

Proponents Are: Manitoba Conservation
Date Approved: March 6, 2001
Total Amount Approved: $200,000.00
Total Amount Expended: $157,996.03

Summary:

The Environmental Youth Corps (EYC) has provided Manitoba's young people with an opportunity to prepare for the environmental challenges of tomorrow by helping them gain valuable education and experience today. EYC encourages youth to volunteer within their community for projects to improve and protect Manitoba's environment. The EYC program allows youth the opportunity to be involved in a variety of environmental activities that may otherwise not occur. The EYC program has demonstrated the government's commitment of increasing the opportunities for young people to be involved in environment-related activities, and to further the commitment of environmental protection and education for youth.

Environmental projects eligible for funding to a maximum of $5,000.00 include (but are not restricted to): water quality, waste minimization (recycling, composting, etc.), protection of flora and fauna, rehabilitation and conservation of the natural environment, wildlife conservation and habitat preservation.

EYC SUMMARY

Total Allocation for 2001/2002	**$200,000.00**
Applications Processed	50
Applications Approved	36
Applications Deferred	1
Applications Declined	10
Applications Withdrawn	3
Number of Youth Involved	2,087
Total Amount for Grants Approved	$87,254.00
Total Amount for Grants Expended	$87,170.09
Administration Costs (travel, printing, promotion, Coordinator's salary)	$70,825.94
Total Amount Expended	**$157,996.03**

Brief descriptions of the 36 projects approved under the EYC program during the 2001/2002 fiscal year are as follows:

RED RIVER REGION (WINNIPEG)

Ecole Crane involved up to 210 youths in a project to add to their outdoor classroom. The youth will plant shrubs to create a bird watching station, transplant trees to the site, and expand their recycling program by purchasing additional bins. *Approved $425.00.*

John W. Gunn Middle School involved up to 40 students in the establishment of recycling and composting programs. Vermi-composting units will be placed throughout the school with a composter outside. Youths will also grow and plant vegetation to help improve air quality and set up an incentive-based program that rewards students who exhibit environmentally friendly habits. *Approved $1,675.00.*

Miles Macdonell Collegiate involved up to 30 youths in the continuance of their millennium project, "A Living Legacy". This project is intended to create a green environment surrounding the school by planting trees and shrubs and placing chip mulch at the site. *Approved $2,245.00.*

Harold Hatcher Elementary School involved up to 30 youths in the naturalization of their schoolyard. Limestone was removed from the front of the school and replaced with grass, shrubs, trees and planters to create a green space. *Approved $2,850.00.*

Immigrant and Refugee Community Organization of Manitoba (IRCOM) involved 60 youths in a community clean up and enhancement initiative. Youth participated in garbage and graffiti clean ups in the area, and present hands-on seminars on yard care. *Approved $3,190.00.*

Manitoba Paddling Association involved youths in community beautification and enhancement project. Youth participated in a riverbank and park clean up near the Manitoba Canoe and Kayak Centre. *Approved $200.00.*

St. Margaret's Anglican Church involved up to 50 youths in a community beautification project. Youth participated in a clean up of a park, planting trees and creating crafts using recycled materials. *Approved $200.00, Expended $116.09.*

Faraday School involved up to 22 youths in a schoolyard beautification and enhancement project. Youth planted basswood, ash chokecherry and spruce trees, as well as mulching the areas beneath the trees with stones and bark chip. *Approved $3,075.00.*

Tec Voc High School – Nature Conservation Club, in partnership with Friends of Omands Creek, involved up to 75 youths in the restoration and rehabilitation of Omands Creek. Youth removed debris, planted wild flowers and shrubs at the site. *Approved $4,800.00.*

Beaumont School involved up to 375 youths in their "Beaumont Forest Outdoor Classroom Project". The youths cleaned up the forest, planted trees, and installed a wood chip trail. The youth informed the community of their actions through a newsletter and interpretative signs placed around the site. *Approved $3,761.00.*

Bunn's Creek Environmental Stewardship Association – North Kildonan Clean and Green Team involved 12 youth in the installation of a 2.5-km wood chip nature-hiking trail. The youth cleared the assigned area and spread the wood chips. *Approved $5,000.00.*

Sturgeon Creek Association involved up to 20 youths in a tree-planting project. Youth assisted in planting a variety of native trees along Sturgeon Creek. *Approved $5,000.00.*

Ecole Marie-Anne Gaboury Environmental Action Committee involved 220 youths in the final phase of a "Schoolyard Naturalization Project". The youths planted a variety of native trees along the north perimeter of the school ground. *Approved $3,000.00.*

EASTERN AND INTERLAKE REGIONS (EASTERN INTERLAKE)

Matheson Island Community Council involved up to 15 youths in a community beautification and enhancement project. Youth cleaned areas around community buildings, lakeshore, ditches and campsites. Flowers were planted in various areas and recycling bins placed throughout the community.
Approved $2,700.00.

Concord School involved 38 youths in a schoolyard rehabilitation project. Youths assisted placing sod on the grounds, as well as planting shrubs, trees and other vegetation. *Approved $1,000.00.*

Landmark Elementary School involved 10 youths in their school beautification project. This project included the planting of trees, shrubs and flowers, as well as installing trash containers and park benches. *Approved $1,530.00.*

AKI Wilderness Group (Aghaming, MB) involved up to 18 youths in the initial stages of a future Environmental Awareness Centre. Youth assisted in planting flowering vines, clearing an area and building the base and decking for the Awareness Centre. *Approved $2,545.00.*

East Side United Recreation (Manigotogan, MB) implemented a "Mothers and Daughters Orchard and Flowerbed program" in the community. Mothers and teen daughters in the community planted a mini orchard and several perennial flowerbeds throughout the community. *Approved $887.00.*

Bloodvein First Nation involved up to 7 youths in a community clean up and beautification project. In undertaking this project, youth participated by presenting educational workshops to the community on environmental issues. *Approved $5,000.00.*

RED RIVER REGION (SOUTH CENTRAL)

Dakota Tipi First Nation involved 27 youths in a community clean up and beautification project. Youth beautified the community by cleaning ditches and roadways, pruning trees, planting community vegetable and flower gardens, and assisting in the collection of recyclable materials. *Approved $2,170.00.*

Roland Elementary School involved 86 youths in a schoolyard beautification project. The youth measured and prepared the site for the planting of trees in their school yard, as well as planting and caring for planters placed at the school's main entrance. *Approved $500.00.*

Morris School Envirothon Team Green involved over 40 youth in a school ground beautification and enhancement, and landscaping initiative. Youth assisted in creating a park-like setting by planting perennials, shrubs, wildflowers, and trees, as well as assisting in the construction of a winding pathway that would be accessible to Special Needs students. The project was undertaken in partnership with the entire community. Youth from the Building Construction Program at Altona's Red River Technical Vocational School participated in some of the project activities. *Approved $5,000.00.*

NORTHEAST AND NORTHWEST REGIONS (NORTHERN)

Pikwitonei Community Council involved up to 30 youths in a community clean up and enhancement project. Youths assisted in enhancing the community be removing debris, planting grass, trees and shrubs, clearing weeds and debris to create a park-like setting. *Approved $1,400.00.*

Gods Lake First Nation involved 10 youths in a community clean up and beautification project of the roadways within the community. Youth picked up letter along the roadways of Gods Lake Narrows. *Approved $2,130.00.*

WESTERN AND NORTHWEST (PARK WEST)

St. Augustine School (Brandon, MB) involved up to 220 youths in a schoolyard beautification project. Youth assisted in creating green space and park-like area by installing a picnic table and building a raised vegetable garden. *Approved $400.00.*

Red Deer Lake Community Council involved up to 17 youths in a community beautification project by cleaning the playground, park beach and community hall grounds. As well, youth picked up garbage, removed debris and planted flowers. *Approved $2,500.00.*

Neelin High School, in partnership with the City of Brandon, involved up to 250 youths in a community tree-planting project. Youth planted trees at five school grounds throughout Brandon. Youths from various schools assisted Neelin High School students in planting and staking trees. *Approved $2,550.00.*

Vincent Massey School Environmental Parks Committee (Brandon, MB) involved five youths in a schoolyard beautification project. Youth planted trees, shrubs, vines and other vegetation and assisted in creating paths with benches and tables. *Approved $1,050.00.*

Meadow Portage Recreation Committee involved up to six youths in a revitalization project of the community-park. Youth organized and undertook the clean up of the community, roadsides and assisted with the recycling program. *Approved $2,550.00.*

Pierson Environmental Group involved up to 75 youths in a project to sustain and develop environmental areas around Pierson. The youth transplanted trees throughout the area, restored a butterfly-hummingbird area, cleaned a segment of creek bank, erected a sign, planted trees and shrubs around the sign and established a "prairie restoration program" that identifies natural prairie plant life for public education. *Approved $5,000.00.*

Nature Valley School (Wawanesa, MB) involved 16 youths in creating a raised flowerbed near the school. The youth assisted in building the flowerbed then planted shrubs and flowers with composted material. *Approved $781.00.*

Crane River Recreation Committee involved up to 10 youths in a community revitalization project of the local park and a beachfront. The youth pruned trees, helped to create a multipurpose walking trail and rehabilitated the beachfront area. *Approved $2,500.00.*

Spence Lake Recreation Committee involved up to seven youths in a community revitalization project of Spence Lake Park and surrounding area. The youth built and installed benches and birdhouses and watered the trees and flowers. *Approved $2,350.00.*

Pine Creek School involved up to 13 youths in a community beautification and enhancement project. Youth assisted in creating a park-like setting by planting trees and flowers and establishing a community vegetable garden along with the Elders. *Approved $1,090.00.*

Meadows School (Brandon, MB) involved up to 500 youths in its "Enviro-Tech Education" research project. The youth conducted research of riverbank ecology. Using the research material, the youth created a user-friendly booklet on riverbank ecology for children to use on walking tours. *Approved $1,200.00.*

Decker Colony School involved over 50 youths in a school ground naturalization project to enhance local flora and fauna. Youth assisted in planting trees, shrubs and flowers, and to encourage wildlife to the area, youth constructed bird feeders and bird houses and located them throughout the community. *Approved $5,000.00.*

MANITOBA CLIMATE CHANGE ACTION FUND

Proponents Are: Manitoba Conservation
Date Approved: March 6, 2001
Total Amount Approved: $250,000.00
Total Amount Expended: $247,340.00

Summary:

Treasury Board approved a four year $1.0 million Broad Allocation ($250,000.00 annually) under the Sustainable Development Innovations Fund for the Climate Change Action Fund (MCCAF). Manitoba Conservation, Climate Change Branch, administers the Manitoba Climate Change Action Fund (MCCAF) to support practical, Manitoba based, actions that respond to the issue of Climate Change. MCCAF will support projects focusing on public education and outreach; the scientific understanding of climate change impacts and potential adaptation practices; technological innovation (research and commercialization); energy efficiency and alternative or "green energy". MCCAF will provide up to 50% of the total budget costs.

The Minister of Conservation has delegated grant approval authority up to $25,000.00, including approvals cashflowed or phased over more than one fiscal year.

MCCAF SUMMARY

Total Allocation for 2001/2002	**$250,000.00**
Applications Process	18
Applications Approved	10
Applications Deferred	0
Applications Declined	8
Applications Withdrawn	0
Total Amount for Grants Approved	$247,340.00
Total Amount Expended	**$**

Brief descriptions of the ten (10) projects approved under the Manitoba Climate Change Action Fund during the 2001/2002 fiscal year are as follows:

EDUCATION AND OUTREACH

CLIMATE WATCH MULITMEDIA PROJECT

Proponents Are:	Earth Chronicle Productions
Date Approved:	December 19, 2001
Total Amount Approved:	$12,000.00
Total Amount Expended:	$12,000.00

Summary:

A grant of $12,000.00 was approved to create an Internet site on Climate Change. This Climate Change Internet site will showcase successful corporate, government and community-based greenhouse gas reduction efforts. By showcasing the voices of committed and articulate people from across Canada, the Internet site will be a useful vehicle for inspiring and motivating. The site will highlight what people can do at home, in their neighbourhoods, at work and on the road, to reduce their contribution to global warming.

EVALUATION OF NEAR-INFRARED SPECTROSCOPY AS A RAPID METHOD FOR ESTIMATING THE CARBON STORED PER UNIT AREA IN A WETLAND

Proponents Are:	PDK Projects Inc.
Date Approved:	December 19, 2001
Total Amount Approved:	$12,260.00
Total Amount Expended:	$12,260.00

Summary:

A grant of $12,260.00 was approved to support the initial phase of a larger project aimed at applying near-infrared spectroscopy as one analytical tool to estimate the total amount of carbon stored in large wetland; estimate quantities of carbon of various qualities; and estimate the exchange of carbon dioxide and methane between wetlands and the atmosphere if they are to be considered in net carbon emission reduction. Wetlands cover approximately 14% of Canada's land surface and they contain the highest density of carbon of all land-based ecosystems. Wetlands are subject to ecological change and draining that might release carbon and methane into the atmosphere. If they are to be considered in Canada's carbon emission reduction, they will have to be inventoried, monitored and verified as to changes in inventory and monitored with respect to net exchanges of carbon dioxide and methane.

FOREST EDUCATION AND CLIMATE CHANGE AND JOINT ENVIROTHON COMPETITION AT THE INTERNATIONAL PEACE GARDENS

Proponents Are:	Manitoba Forestry Association
Date Approved:	December 19, 2001
Total Amount Approved:	$24,000.00
Total Amount Expended:	$24,000.00

Summary:

A grant of $24,000.00 was approved to integrate climate change into all the Manitoba Forestry Association's education programs and to support the joint Envirothon competition at the International Peace Gardens. Most of the funds for the integration of climate change into the education program will be used to retain the services of a climate change expert that would research, assemble and prepare the information for the target age groups.

MANITOBA CLIMATE CHANGE TASK FORCE

Proponents Are:	Manitoba Conservation, Clean Environment Commission
Date Approved:	August 21, 2001
Total Amount Approved:	$60,000.00
Total Amount Expended:	$60,000.00

Summary:

A grant of $60,000.00 was approved to support the Manitoba Climate Change Task Force in the delivery of a variety of programs including various public consultation exercises. The Task Force was created to assist in the development of Manitoba's strategy on climate change. Among other things the Task Force considered how Manitoba might effectively lever funding from the federal government and other sources for climate change related activities, particularly in supporting research, planning and projects. It assessed the economic development and employment opportunities associated with climate change, particularly in hydro, alternative fuels, agriculture, forestry and transportation equipment. As part of its activities, three public consultation meetings were held one each in Winnipeg, Brandon, and The Pas. The Task Force also conducted a "Youth Outreach" program, in a focused effort to attract youth input to the process. The final report of the Task Force has been completed and submitted to the Manitoba Government.

MANITOBA CLIMATE CHANGE PUBLIC EDUCATION & OUTREACH HUB

Proponents Are:	Manitoba Eco-Network
Date Approved:	December 19, 2001
Total Amount Approved:	$25,000.00
Total Amount Expended:	$25,000.00

Summary:

A grant of $25,000.00 was approved for this fiscal year to establish the climate change "Connection" network organization. The overall purpose of the "Connection" will be to increase coordination and interaction of groups that are active, concerned or knowledgeable in the area of climate change public education and outreach. The "Hub" will build upon existing opportunities and structures, as well as proactively seek new opportunities to extend the reach of the public education and outreach programs to achieve these objectives. In the pilot phase, it is proposed that Manitoba Eco-Network be invited to host and serve as co-chair for the "Connection" in Manitoba. Fort Whyte Centre for Environmental Education is the other co-chair.

SAFE, ACTIVE, GREEN, EASY (SAGE)

Proponents Are:	Resource Conservation Manitoba
Date Approved:	December 19, 2001
Total Amount Approved:	$15,000.00
Total Amount Expended:	$15,000.00

Summary:

A grant of $15,000.00 was approved to encourage and support the adoption of ecological and sustainable transportation of children to school as opposed to the use of cars and resulting greenhouse gas emissions. The program will liase with other similar efforts in British Columbia and Ontario. This project has potential as a community development tool, by linking organizations and the issues of sustainable transportation with health, safety and environmental education and protection.

SYSTEMATIC INFORMING OF FIRST NATION COMMUNITIES ABOUT GLOBAL WARMING AND ITS AFFECT ON COMMUNITIES

Proponents Are:	Archie Phillips
Date Approved:	December 19, 2001
Total Amount Approved:	$25,000.00
Total Amount Expended:	$25,000.00

Summary:

A grant of $25,000.00 was approved to support a systematic effort to inform all First Nation communities, that will be affected most by global warming, on climate change so that they can gain a concise understanding of the problem and look at alternative ways to help solve future problems. Through an objective survey and interviews of key stakeholders, the proponent identified key elements that define community-based collaborative resource partnerships, the range of roles in the decision-making process, and the experience and concerns of all primary interest groups. In addition, the proponent will categorize the outcomes of different collaborative partnerships and explore alternatives to those processes. From this data, the proponent will derive a set of criteria to serve as guidelines for judging the effects of global warming and what can be done.

USING THE SEDIMENTARY RECORD IN WEST HAWK LAKE FOR CLIMATE MODELING

Proponents Are:	University of Manitoba, Department of Geological Sciences
Date Approved:	December 19, 2001
Total Amount Approved:	$25,000.00
Total Amount Expended:	$25,000.00

Summary:

A grant of $25,000.00 was approved to conduct research into Quaternary climate change in glaciated North America. The proponent will conduct measurements and assessments of key physical, chemical and biological components of the West Hawk Lake sequence. This data will enable construction of temporally and spatially varying, realistic climate change models that will generate understanding of potential ecological responses to future global warming in Canada's midcontinental region.

TECHNICAL INNOVATION

WAVEMILL

Proponents Are:	Wavemill Energy Corporation
Date Approved:	December 19, 2001
Total Amount Approved:	$24,080.00
Total Amount Expended:	$24,080.00

Summary:

A grant of $24,080.00 was approved to design, fabricate, deploy and monitor the performance of a wavemill device that converts energy generated by water waves to useable power that can be used to filter impurities from water. This type of device would be extremely useful for countries low on fresh water but surrounded by saltwater.

WIND MONITORING PROJECT

Proponents Are:	Manitoba Hydro
Date Approved:	March 19, 2002
Total Amount Approved:	$25,000.00
Total Amount Expended:	$25,000.00

Summary:

A grant of $25,000.00 was approved to monitor wind speeds in various locations throughout Manitoba for a period of one year. A feasibility study has indicated that wind power generation may be economical depending on the nature of the wind at one of the possible locations. The report indicates that wind speeds in Manitoba are promising but actual tests or monitoring on various sites has never been done before to determine if wind energy would be economically viable in Manitoba.

MANITOBA HABITAT HERITAGE CORPORATION SOUTHWEST (AGRO) WOODLOT PROGRAM

Proponents Are: Manitoba Conservation (Manitoba Habitat Heritage Corporation)
Date Approved: March 6, 2001
Total Amount Approved: $312,400.00
Total Amount Expended: $312,400.00

Summary:

Treasury Board approved a one-year Broad Allocation of $312,400.00 commencing in 2001/2002 under the Sustainable Development Innovations Fund to support the operations of the Manitoba Habitat Heritage Corporation Southwest (Agro) Woodlot Program. Manitoba Conservation, Forestry Branch, administered this grant funding.

Following are brief descriptions of the services and activities undertaken through this program during the 2001/2002 fiscal year:

Woodlot Management Planning

The staff of the Manitoba Agro Woodlot Program (MAWP) assisted interested landowners in woodlot management planning. As well, staff assisted other landowners, interested only pasture conversions, with timber assessments, information on current stumpage rates, management options and timber sale agreements (see Table 1 below). The MAWP also developed a research plot in a hardwood stand along the Brokenhead River to evaluate the response of selected growing stock to release after tree and stand improvement.

Currently, staff is revising the management plan document by evaluating the Ontario Managed Forest Tax Incentive Program plan in anticipation of standardizing a Manitoba plan and management planning process. The goal of the new standardized planning process is to position woodlots for certification.

Since 1992/1993, the Agro Woodlot Program has completed 193 woodlot management plans on a total of 25,497.2 acres.

Table 1: Woodlot Management Planning Summary

Office Location	Number of				
	Timber Assessments [1]	Management Plans Completed	Management Plan Acres [2]	Management Plans In Progress [3]	Landowners Waiting [4]
Killarney	5	13	1725.2	2	12
Minnedosa	1	10	666.2	8	12
Total	6	23	2391.4	10	24

[1]Either (i) landowners not interested in management, therefore only provide cruise data volume estimates as well as information on market values and timer sale agreements or (ii) landowners with non-merchantable timber.
[2]Number of acres under woodlot management – i.e. cruised but not necessarily the total number of wooded acres owned.
[3]Cruised but management plan not completed.
[4]Property not cruised, but may have collected raw data sets.

Tree Planting

The staff of MAWP assisted communities and landowners secure funding for tree planting, provided technical and organizational support to communities planting trees, assisted in securing trees, assisted with design work particularly on hog barn snow management projects. Staff noted that there seemed to be a trend to reduced landowner demand for tree planting.

Since 1992/1993, the MAWP has been instrumental in planting 1,035,359 trees and shrubs on 778 landowner projects and 66,548 trees on 137 community projects. In total since 1992/1993, due to the MAWP 1,101,907 trees and shrubs have been planted on 915 private land projects.

Table 2: Tree Planting Summary

Office Location	No. of Projects						
	Livestock [1]	Bio-Eng [2]	Alley Crop [3]	Other [4]	Community	Total No. Projects	Total No. of trees
Killarney	3 projects 4,755 trees	1 project 3,550 trees	2 projects 700 trees	19 projects 19,175 trees	6 projects 2,780 trees	31	30,960
Minnedosa		1 project 225 trees		6 projects 1900 trees	3 projects 1275 trees	10	3,400
Total Projects	3	2	2	25	9	41	-
Total trees	4,755	3,775	700	21,075	4,055	-	34,360

[1] Includes silvapasture, living barns, etc.
[2] Includes willow post, snow management, etc.
[3] Includes alley cropping and silvacycling.
[4] Includes wildlife corridors, block plantations and forest renewal.

Communications

MAWP staff has manned their display at the 3rd annual Winnipeg Wood Show; Manitoba Agriculture's "Alternative Enterprises in Agriculture" in Melita, Minnedosa and Hamiota; Ag Days in January; and the Royal Winter Fair in Brandon. Staff also attended the Boreal Forest Forum in Winnipeg during March 2002.

Staff assisted with an article about the work done on private property in conjunction with the Agro Woodlot Program that resulted in an interview on CBC radio and they assisted with production of fact sheets on Wood Drying and Silvapasture.

Workshop Progress

Staff of MAWP held four workshops during the 2001/2002 fiscal year, one workshop on Wealth in Woodlots, one on community tree care and two on Full Vigour Forestry. Since 1992/1993, MAWP has conducted a total of 92 workshops with 1,693 participants (see Table 3).

The workshop on Wealth in Woodlots included an explanation of the services provided by MAWP; introduction of forest ecosystems and wildlife considerations, woodlot management process and services and timber sale agreements; and a walk through an active poplar harvest. The primary goals of this workshop were to help landowners make informed decisions, to maximize returns to landowners and promote the concept of using the community's exceptional resources as an opportunity for economic development.

The Full Vigour Forestry Workshop demonstrated how to evaluate and prescribe tree and stand improvement in ash and white spruce stands. In addition, the workshop demonstrated how to add value to low grade Tree and Stand Improvement (TSI) timber as well as directional felling and low impact logging techniques. The workshop also promoted community or co-operative forest values.

One MAWP staff member assisted with a two-day erosion control conference entitled, "Rules & Tools for the Prairies" held in Neepawa and Minnedosa. The featured guest speaker was Jay Michels of the Minnesota Erosion Control Association and the Department of Fisheries and Oceans and Manitoba Conservation, Water Resources Branch, made presentations. Over 80 people from towns and municipalities, conservation districts, environmental consultant firms, educational institutions, the City of Winnipeg, Ducks Unlimited, provincial government, Prairie Farm Rehabilitation Association and Fisheries and Oceans attended this conference.

Potential workshops during the 2002/2003 fiscal year include micro forestry equipment, tree care, community or co-operative forestry, lumber auction or sale, sanding and finishing, and kiln drying and milling for grade.

Table 3: Training Workshop Summary

Workshop Type	Number of	2001/2002	Total (1992/93 – 2001/02)
Micro Forestry Workshops [1]	Workshops	3	51 + 3 = **54**
	Participants	38	610 + 38 = **648**
Other Workshops [2]	Workshops	1	37 + 1 = **38**
	Participants	7	1,038 + 7 = **1,045**
Total	Workshops	4	88 + 4 = **92**
	Participants	45	1,648 + 45 = **1,693**

[1] Forestry Workshops include Chainsaw Operation and Maintenance, Bandsaw Mill Alignment, Circular Sawmill Operation and Maintenance, Hardwood Lumber Grading, Kiln Drying, Maximizing Economic Returns from Hardwood, Square Timber Building, Wood Turning, and Wealth in Woodlots etc.

[2] Other includes Community Tree Care, Bioengineering, First Nations Forestry Conference and Lumber Auction etc.

Contacts/Partnerships

MAWP staff provided support to other organizations on technical matters, on planning and organizational matters for conferences/committees/workshops, etc. and on partnerships. Staff also helped plan a video shoot on the importance of wooded riparian lands in minimizing erosion. A staff member assisted with the identification of native and exotic tree species planted at the Heritage House in Killarney. As well, MAWP entered into a partnership with the Pembina Valley Conservation District to use the new "Water Jet Stinger", developed in partnership with the Minnedosa Lake Rehabilitation Committee, for a streambank restoration project.

During the 2002/2003 fiscal year, MAWP will continue to assist Native Plant Solutions, an arm of Ducks Unlimited that produces native plants for restoration purposes, with the City of Winnipeg riverbank restoration project and assist Fisheries and Oceans Canada to develop reasonable criteria for river bank restoration/re-vegetation and performance monitoring standards. The program will also promote community or co-operative forestry through partnerships with the Little Saskatchewan, Tiger Hills and Turtle Mountain Conservation Districts.

MANITOBA ORPHAN MINE SITE ASSESSEMENT PROGRAM

Proponents Are: Manitoba Conservation
Date Approved: March 6, 2001
Total Amount Approved: $250,000.00 (2001/2002)
Total Amount Expended: $ 93,229.84

Summary:

Treasury Board approved a four year $1.0 million Broad Allocation ($250,000.00 annually) commencing in 2001/2002 under the Sustainable Development Innovations Fund for the Department of Conservation to undertake site specific human health and environmental site assessments at identified orphan/abandoned mine sites (Refer to Table 1)

TABLE 1

Total amount of $1,000,000.00 approved over a four-year period for the following assessment projects:

Location	Approved Amount	Assessment Project	Status	Total Expenditure to Date
Sherridon	$20,000 * TBD	• Hydrogeological/chemistry study • Site Specific Human Health and Ecological Risk Assessment	- in progress - continuing (2002-03)	$17,760.17
Gods Lake	* TBD	• Site Specific Human and Ecological Health Risk Assessment	- in future (2002-05)	
Lynn Lake	$330,000	• Site Specific Human and Ecological Health Risk Assessment	- November 2001 to March 2003	$75,469.67
Snow Lake	* TBD	• Site Specific Human and Ecological Health Risk Assessment	- in future (2002-05)	
Baker Paton	* TBD	• Site Specific Human and Ecological Health Risk Assessment	- in future (2002-05)	

* To Be Determined

SHERRIDON

Total Amount Approved 2001/02: $20,000.00
Total Amount Expended 2001/02: $17,760.17

Summary:

The Sherridon study represents a continuation of a hydrogeologicial/geochemical study of the Sherridon Mine tailings impoundment. This study will provide important environmental information on the impacts of the mine tailings on the adjacent water bodies and the data obtained will be applied in the site specific risk assessment that will be initiated in 2002/2003. Data collection was completed over the summer and early fall of 2001. This involved collection of groundwater and surface water samples around the mine tailings impoundment and assessment of hydrogeological/geochemical conditions. The samples were analyzed, the data was assessed and a report was prepared. During the next fiscal year, Conservation will proceed with hiring an environmental consultant to undertake a site specific human health and environmental assessment of Sherridon. The information from the hydrogeological/geochemcial study will be applied in the risk assessment model.

LYNN LAKE

Total Amount Approved 2001/02: $230,000.00
Total Amount Expended 2001/02: $ 75,469.67

Summary:

On September 5, 2001 a public meeting was held in Lynn Lake to provide the local community and the Marcel Colomb First Nation an opportunity to provide input on a Request-for-Proposal (RFP) to undertake a site specific human health and environmental risk assessment at Lynn Lake. The RFP was issued and a contract was awarded to Dillon Consulting Limited in November 2001. A Technical Advisory Committee (TAC) consisting of technical staff from Manitoba Conservation, Manitoba Health and Manitoba Industry, Trade and Mines has been established to provide guidance to the consultant. The Town of Lynn Lake and the Marcel Colomb First Nation have been invited to participate in the TAC. The consultant has reviewed existing human health and environmental data to determine if there are data gaps. Where gaps exist, the consultant developed a monitoring plan that will obtain the necessary data for the risk assessment. In addition, the consultant initiated work on environmental and human receptor characterization. This work will identify important ecological features in order to develop a clear understanding of the local ecosystems and indigenous wildlife and all relevant human receptors in the community. In March 2002, meetings were held with Lynn Lake Community Adjustment Committee and the Marcel Colomb First Nation and a Public Open House was conducted to solicit community input. The TAC and the consultants provided information on the proposed sampling/monitoring program for the community. Contaminant characterization that will assess ambient air exposure, indoor air exposure, contaminant releases, exposure pathway analysis, aquatic/terrestrial exposure and uncertainty analysis, will be conducted during 2002. The hazard assessment and risk characterization will commence in October 2002 and be completed in February 2003. A final report will be completed in March 2003.

MANITOBA ORPHAN MINE SITE REHABILITATION PROGRAM

Proponents Are: Manitoba Industry, Trade and Mines
Date Approved: July 18, 2000
Total Amount Approved: $331,600.00 (2001/2002)
Total Amount Expended: $288,430.74 (2001/2002)

Summary:

On July 18, 2000, Treasury Board approved-in-principle a four-year $1.0 million Broad Allocation ($250,000.00 annually) from the Sustainable Development Innovations Fund to the Department of Industry, Trade and Mines, Mines Branch, for an Orphan Mine Site Program to rehabilitate Crown owned orphan mine sites in Manitoba. The four-year work plan includes rehabilitation at Sherridon, Gods Lake, Baker Paton, Snow Lake and East Lynn Lake.

On February 19, 2002, Treasury Board approved an increased allocation of up to $81,600.00 for a total of $331,600.00 in 2001/2002 from the Sustainable Development Innovations Fund to the Mines Branch, Manitoba Industry, Trade and Mines, to complete additional work under this program. The total expenditure from April 2000 to March 31, 2002 was $350,246.33 and the details are given below in Table I.

Table I

Project Location	Total SDIF Approval ($)	Expenditure for 2000/01 ($)	Expenditure for 2001/02 ($)	Total Expenditure up to March 31, 2002 ($)
Sherridon	100,000	43,699.34	31,129.75	74,739.09
Gods Lake	250,000	18,206.25	201,161.98	219,368.23
Snow Lake	20,000	nil	29,430.33	29,430.33
Lynn Lake	500,000	nil	26,708.68	26,708.68
Baker Paton	150,000	nil	nil	nil
Total	**1.0 M**	**61,815.39**	**288,430.74**	**350,246.33**

Sherridon

Five open (glory) holes fence repairs and three open shafts were capped by Sherridon Community Council and B.B Contractors from The Pas. A "Raw Water Quality" study was carried out by Stantec Consultants Ltd. The study was completed in March 2001 and a copy of the report with recommendations was forwarded to Aboriginal and Northern Affairs for action. Dr. C. Ptacek from the University of Waterloo and Environment Canada carried out a study of the hydrogeology and geochemistry at Sherrdion tailings. Dr. C. Ptacek and Environment Canada will carryout further investigative work on the tailings. This study is jointly funded by Environment Canada and Manitoba Conservation. Engineering design for rip-rap stabilization of Sherlett Creek embankment has been completed.

Gods Lake

Using winter roads all precast concrete caps were transported to Elk Island in March 2002. Shaft caps have been installed on #1 Shaft, Smelter Bay Shaft, pumphouse raise and existing shaft caps at #2 Shaft were replaced at Elk Island. The winter roads were opened to the full load capacity only for about a week. This caused delay in the planned work for FY 2001/2002. Due to heavy snowfall the work could not be inspected in March, but it will be inspected in the summer. It is anticipated that Jowsey Island rehabilitation will be completed in FY 2002/2003. In 2001/2002 the mill foundation was demolished and leveled.

Snow Lake

A grant agreement for the amount of $45,000 has been signed between Mines Branch and University of Manitoba. Dr. Barbara Sherriff will conduct the investigative and analytical work on the Arsenopyrite Residue Pile at Snow Lake. The test work will commence in summer of 2002 and is expected to last over two years and an M.Sc. thesis on the investigative work will be published in 2004.

In order to collect samples for the study, four holes were drilled into the pile by Midwest Drilling. Three holes were drilled diagonally and the forth hole was drilled in the northwest corner of the residue pile. The holes were drilled through the rock cap, the tailings and into the clay at the base. The total length drilled was 145 feet and 99 feet of residue sample was collected. The samples are on 5-foot long plastic tubes and are stored in a freezer at the U of M. The drill holes were grouted with cement and bentonite clay.

Lynn Lake

The study on dyke safety, geotechnical investigation, foundation conditions, slimes investigation, relative impact of acidic drainage on receiving environment with recommendations and cost associated to stabilize the dykes was completed in December 2001. The estimated cost to establish the long-term stability of the dykes varies from $1 M to $26 M. Mines Branch is working with the consultants to develop the scope of work to maintain short-term integrity of Dykes 4 and 5 located on ETMA. Mines Branch personnel met with Lynn Lake Town Council in January 2002 and briefed the progress of rehabilitation work and addressed other concerns raised by the Town Council.

WASTE REDUCTION AND POLLUTION PREVENTION (WRAPP) FUND

Proponents Are: Manitoba Conservation
Date Approved: March 6, 2001
Total Amount Approved: $550,000.00
Total Amount Expended: $526,829.76

Summary:

Treasury Board authorized the Department of Conservation to proceed with the implementation of a new Broad Allocation, the Waste Reduction and Pollution Prevention (WRAPP) Fund, which is to be funded from the Sustainable Development Innovations Fund. This program was allocated $550,000.00 for the 2001/2002 fiscal year, as part of a four-year $2.2 million Broad Allocation.

The Minister of Conservation has delegated grant approval authority up to $25,000.00, including approvals cashflowed or phased over more than one fiscal year.

The WRAPP Fund will support projects in the following priority areas: organic waste management and composting; pollution prevention; and model integrated waste management system development and planning. Financial partnerships are encouraged and at least 50% of the total project costs should come from project proponents or sponsors other than the Province of Manitoba.

Up to $100,000.00 of the total allocation is set aside for program development.

WRAPP FUND SUMMARY

Total Allocation for 2001/2002	**$550,000,00**
Applications Processed	41
Applications Approved	31
Applications Deferred	0
Applications Declined	10
Applications Withdrawn	0
Total Amount for Grants Approved	$449,945.00
Total Amount for Grants Expended	
Program Development (consultations, promotions, requests for proposals, seminars, materials, etc.)	$ 76,884.76
Total Expended	$526,829.76

Brief descriptions of the thirty-two (32) projects within the priority WRAPP areas are as follows:

COMPOSTING

BEAUSEJOUR LAWN AND GARDEN COMPOST SITE DEVELOPMENT

Proponents Are:	Town of Beausejour
Date Approved:	June 29, 2001
Total Amount Approved:	$12,750.00
Total Amount Expended:	$12,750.00

Summary:

A grant of $12,750.00 was approved to expand the Town Lawn and Composting site. The new site is more suitable and less visible than the existing site, and its promotion will encourage use of the site, reducing the amount of organic waste entering the landfill. This project will potentially lower MSW management costs (as all municipal solid waste is shipped to a regional landfill for disposal) and provide a source of free compost soil.

CITY OF BRANDON BACKYARD COMPOSTING PROGRAM

Proponents Are:	City of Brandon
Date Approved:	June 29, 2001
Total Amount Approved:	$19,000.00
Total Amount Expended:	$19,000.00

Summary:

A grant of $19,000.00 was approved to promote the reduction of organic waste delivered to the local landfill by promoting the household implementation of backyard composting with a one-day sale of Backyard Composters at a discounted price. The success of this project will be monitored by a survey of the purchasers, and the results will determine the possibility of a more widespread implementation of this strategy.

COMPOSTING 101

Proponents Are:	The Marquis Project
Date Approved:	November 21, 2001
Total Amount Approved:	$24,700.00
Total Amount Expended:	$24,700.00

Summary:

A grant of $6,700.00 was approved to conduct a series of educational presentations focused on the promotion of the environmental and economic benefits of composting. The presentations will be primarily focused on students in grades 3,6 and 11, but they will also be delivered to others, such as church groups and youth groups as well as during public events. Information materials will also be distributed and printed monthly in the local newspaper. An educational template based on this project will be disseminated throughout the province so other regions can benefit from this.

EAST ST. PAUL COMPOST SITE EXPANSION

Proponents Are:	Rural Municipality of East St. Paul
Date Approved:	June 29, 2001
Total Amount Approved:	$9,000.00
Total Amount Expended:	$9,000.00

Summary:

A grant of $9,000.00 was approved to expand the existing compost site and make the compost available to the general public. The expanded site will reduce strain on the landfill and provide compost free of charge to the public. Expansion of the existing site includes preparation of the subgrade and then placing and compacting limestone in the area.

MICROBIOLOGY OF COMPOSTING

Proponents Are:	University of Winnipeg
Date Approved:	January 29, 2002
Total Amount Approved:	$4,000.00
Total Amount Expended:	$4,000.00

Summary:

A grant of $4,000.00 was approved to assist in scientifically investigating the bacteria involved in the composting process. Due to its complexity, little is known of the types of bacteria involved in the composting process and the roles that they play. New techniques involving molecular analysis will be applied in this study to expand understanding of the composting process. Funding is needed for the new types of laboratory equipment and materials needed to perform the various analyses.

WINDROW COMPOSTING OF BIOSOLIDS – PHASE II

Proponents Are:	University of Manitoba
Date Approved:	January 29, 2002
Total Amount Approved:	$25,000.00
Total Amount Expended:	$25,000.00

Summary:

A grant of $25,000.00 was approved to develop cost effective approaches to organic waste material management in Manitoba. Phase I of the project was completed in October 2001. The project has operated and analyzed four windrows for forty-three days with nine turnings and one moisture addition. Composted materials include biosolids, woodchips and leaves. One window reached a temperature greater than 55°C for a total of eleven days. Detailed technical reports are being prepared. Phase II, currently in progress, will operate a single windrow throughout the winter. Once composted the material will be screened and subjected to final sampling and testing.

YARD WASTE COLLECTION PILOT PROGRAM

Proponents Are:	City of Winnipeg
Date Approved:	January 29, 2002
Total Amount Approved:	$25,000.00 (2001/2002)
Total Amount Expended:	$25,000.00 (2001/2002)

Summary:

A total grant of $50,000.00 ($25,000.00 in 2001/2002 and $25,000.00 in 2002/2003) was approved to conduct a pilot yard waste collection program to test the feasibility of implementing a full-scale yard waste collection program. The program will be conducted in ten different areas of the City with approximately one thousand residences in each. Participation in the program will be voluntary and initiated with the delivery of an information package and will involve grass and leaves being collected separately form other garbage and recyclables. The yard materials will be taken to the Brady Road Landfill to be composted.

GREEN PROCUREMENT

SUSTAINABILITY AND GREEN PURCHASING WORKSHOP

Proponents Are:	Centre for Indigenous Environmental Resources, Inc.
Date Approved:	June 29, 2001
Total Amount Approved:	$15,000.00
Total Amount Expended:	$15,000.00

Summary:

A grant of $15,000.00 was approved to develop and deliver a three-day workshop in partnership with the Province of Manitoba that will educate Government of Manitoba department heads in the procurement of green products that contribute to a reduction of waste and/or waste toxicity, and its impact on the environment. This workshop focused on introducing to purchasers, effective tools to aid in the development of green product purchasing strategies and educating department heads on how to encourage and support green procurement.

INSTITUTIONAL WASTE REDUCTION

HOSPITAL RECYCLING PROGRAM IMPLEMENTATION

Proponents Are:	St. Boniface General Hospital
Date Approved:	June 29, 2001
Total Amount Approved:	$5,000.00
Total Amount Expended:	$5,000.00

Summary:

A grant of $5,000.00 was approved to develop an integrated recycling program within the St. Boniface General Hospital, which, if successful, may be integrated into other institutions. The project will address current waste management activities within St. Boniface General Hospital that were evaluated as part of a waste management assessment undertaken by a university student in January 2001. New equipment and collection systems to improve waste diversion levels will be established.

WINNIPEG REGIONAL HEALTH AUTHORITY WASTE MANAGEMENT PLAN

Proponents Are:	Winnipeg Regional Health Authority
Date Approved:	January 29, 2002
Total Amount Approved:	$30,000.00
Total Amount Expended:	$30,000.00

Summary:

A grant of $30,000.00 was approved to develop a comprehensive waste management plan for hospitals within the Winnipeg Regional Health Authority. A procedure manual will be developed dealing with specific waste streams. Waste management plan elements include solvent recycling; toxics reduction, confidential paper waste management and recycling; special waste streams such as microfiche and CDs; solid waste diversion and recycling; organic waste management; and a biomedical waste management plan. The information will have application for other health institutions and regional authorities. The work will build on previously funded WRAPP projects.

INTEGRATED WASTE MANAGEMENT

BUFFALO POINT WASTE REDUCTION AND RECYCLING

Proponents Are:	Buffalo Point First Nation
Date Approved:	November 21, 2001
Total Amount Approved:	$10,000.00
Total Amount Expended:	$10,000.00

Summary:

A grant of $10,000.00 was approved to implement a Buffalo Point community recycling system. The program will include the construction of drop-bins for recyclables that will be placed at strategic points throughout the community. Homeowners will also be given access to bags for collecting their recyclables in. Collected recycled materials will be transported to Eastman Recycling Services in Steinbach. Also included in the project is a promotional program to inform and educate the community residents about recycling.

GREEN CONNECTION

Proponents Are:	Town of Gladstone
Date Approved:	January 29, 2002
Total Amount Approved:	$10,000.00
Total Amount Expended:	$10,000.00

Summary:

A grant of $10,000.00 was approved for phase two of a three-phase project to improve the recycling program in the Town of Gladstone. This phase of the project involves composting through the distribution of backyard compost bins, biodegradable bags and the purchase of a wood chipper for the recycling of tree waste. To improve the local composting operation, a clay-based pad will be constructed for a windrow pile. The recycling program will be enhanced with the utilization of blue boxes, educational workshops and a survey will be conducted to promote and monitor the success of this "Green Connection" program.

SAGKEENG WASTE MANAGEMENT INITIATIVE

Proponents Are:	Sagkeeng First Nation
Date Approved:	June 29, 2001
Total Amount Approved:	$5,000.00
Total Amount Expended:	$5,000.00

Summary:

A grant of $5,000.00 was approved to upgrade Sagkeeng First Nation's south shore landfill site. The upgrade will include the implementation of a recycling program and a waste monitoring system, as well as hiring staff for the landfill.

ST. CLEMENTS RECYCLING PROGRAM

Proponents Are:	Rural Municipality of St. Clements
Date Approved:	June 29, 2001
Total Amount Approved:	$15,500.00
Total Amount Expended:	$15,500.00

Summary:

A grant of $15,500.00 was approved to establish a comprehensive waste management plan for The Rural Municipality of St. Clements that resulted in establishment of four waste transfer stations and one new Class 1 landfill to replace six antiquated landfill sites. This project involves an extensive upgrade to the municipal recycling system. The upgrade will involve the purchase of new collection containers and covered structures to protect the recycling depot sites to be established at each of the transfer stations and landfill.

POLLUTION PREVENTION

ENHANCING STEWARDSHIP OF PLASTIC PACKAGING

Proponents Are:	University of Manitoba
Date Approved:	January 29, 2002
Total Amount Approved:	$10,000.00
Total Amount Expended:	$10,000.00

Summary:

A grant of $10,000.00 was approved to study methods and techniques of reducing the amounts of plastics used by manufacturers in order to address the waste generation problem at source. The study will include investigation of current methods of reduction being used internationally through distribution of a survey, techniques used for the encouragement of reuse on both the consumer and producer level, feasibility of implementation of some of these techniques in Manitoba and investigation of alternatives to these practices. A Manitoba workshop will be conducted to review the options.

GREEN MARINA PROJECT

Proponents Are:	Town of Gimli
Date Approved:	January 29, 2002
Total Amount Approved:	$5,300.00
Total Amount Expended:	$5,300.00

Summary:

A grant of $5,300.00 was approved to develop a program to reduce or eliminate practices that are having a negative effect on the Gimli Harbour in Gimli, Manitoba. This involves the development and distribution of a current practices survey, a subsequent needs assessment, continuous water quality tests, development and distribution of an education program, a follow-up survey and preparation of a final report and recommendations to be disseminated for use by other harbours and waterfront structures.

TOXICS MANAGEMENT PROGRAM

Proponents Are:	Winnipeg Regional Health Authority
Date Approved:	June 29, 2001
Total Amount Approved:	$5,000.00
Total Amount Expended:	$5,000.00

Summary:

A grant of $5,000.00 was approved to improve the toxic management practices for the Winnipeg Regional Health Authority (WRHA) in compliance with the ISO 14001 guidelines. The project involved developing operating procedures, establishing an educational program for ISO 14001 compliant methods and procedures for the recycling of solvents, and the development of US OSHA compliant formalin standards in the form of a workshop.

PROMOTION AND EDUCATION

CANADA-WIDE STANDARDS WORKSHOP

Proponents Are:	Manitoba Environmental Industries Association
Date Approved:	January 29, 2002
Total Amount Approved:	$1,500.00
Total Amount Expended:	$1,500.00

Summary:

A grant of $1,500.00 was approved to develop and deliver a Canada-Wide Standards workshop for PM10, Dioxins/Furans and Mercury to industries that are affected by air emission standards. The workshop will be used to educate the industries, identify issues and provide possible solutions for the implementation of the standards.

COMPOST ACTION MANITOBA

Proponents Are:	Resource Conservation Manitoba
Date Approved:	November 21, 2001
Total Amount Approved:	$45,000.00
Total Amount Expended:	$45,000.00

Summary:

A grant of $45,000.00 was approved to develop public workshops to educate the public about backyard composting, as well as an extensive educational and promotional campaign that involves the distribution of composting resources, instructor training, demonstration sites, a pilot door to door promotion, province-wide help-line, and web based access to publications. It is hoped this project will help to strengthen the ability of Manitoba communities and municipalities to implement this important approach to waste diversion.

COMPOST TRAINER PROJECT

Proponents Are:	Resource Conservation Manitoba
Date Approved:	November 21, 2001
Total Amount Approved:	$3,535.00
Total Amount Expended:	$3,535.00

Summary:

A grant of $3,535.00 was approved for a one-day seminar on backyard composting held in Brandon for twelve municipal leaders. The seminar focused on the benefits and practice of backyard composting, national and local perspectives on backyard composting programs, compost workshop design and delivery and the services and resources available from Resource Conservation Manitoba. The objective of the seminar was to train the participants to educate and promote backyard composting throughout the province by delivering the workshop. Composting is a grossly underused approach to waste reduction and the goal of this education seminar was to provide the tools and knowledge for a more widespread implementation.

FOREST IS AS FOREST DOES GREEN KIDS INC., 12TH ANNUAL SCHOOL TOUR

Proponents Are:	Green Kids Incorporated
Date Approved:	June 29, 2001
Total Amount Approved:	$8,000.00
Total Amount Expended:	$8,000.00

Summary:

A grant of $8,000.00 was approved to conduct a theatrical performance focused on environmental issues that was performed to educate and entertain students in up to one hundred and twenty schools throughout Manitoba, Ontario and Saskatchewan. Its goal is to promote environmental awareness and perspective in youth. The show is designed to inform young people about the steps they can take to have a positive impact on their futures and on that of the planet. The key elements of reduce, reuse and recycle are incorporated into the annual show.

MARKETING OF BACKYARD COMPOSTING

Proponents Are:	University of Manitoba
Date Approved:	January 29, 2002
Total Amount Approved:	$12,000.00
Total Amount Expended:	$12,000.00

Summary:

A grant of $12,000.00 was approved to study the effectiveness of community-based social marketing tools to promote composting practices in Winnipeg. Some of these tools include personal communication, education and economic incentives for composting activity. Collaborators in this project include the University of Manitoba, Resource Conservation Manitoba, Winnipeg Waste Minimization Advisory Committee, the City of Winnipeg, the Province of Manitoba and local Winnipeg residents. Information and results of this project will be disseminated throughout Manitoba.

ORGANIC WASTE MANAGEMENT WORKSHOP

Proponents Are:	Manitoba Environmental Industry Association
Date Approved:	January 29, 2002
Total Amount Approved:	$2,500.00
Total Amount Expended:	$2,500.00

Summary:

A grant of $2,500.00 was approved to develop and deliver an Organic Waste Management Workshop targeting Manitoba's Industrial, Commercial and Institutional Sector. The purpose of the workshop is to educate Manitoba's businesses in business opportunities and issues surrounding organic waste management as well as a possible solution for these issues.

WASTE REDUCTION WEEK 2001

Proponents Are:	Resource Conservation Manitoba
Date Approved:	June 29, 2001
Total Amount Approved:	$4,500.00
Total Amount Expended:	$4,500.00

Summary:

A grant of $4,500.00 was approved to promote waste reduction and sustainable waste management via a one-week public event in partnership with Resource Conservation Manitoba, Manitoba Product Stewardship Corporation and the City of Winnipeg.

REGIONAL RECYCLING

KILLARNEY RECYCLING DEPOT

Proponents Are:	Town of Killarney
Date Approved:	June 29, 2001
Total Amount Approved:	$15,000.00
Total Amount Expended:	$15,000.00

Summary:

A grant of $15,000.00 was approved to start up a recycling depot for the use of the citizens of Killarney and Turtle Mountain. The depot will be operated in partnership between the two municipalities. Ongoing support for the recycling program operation will be provided by the Manitoba Product Stewardship Corporation.

NORTHERN RECYCLING FACILITY EXPANSION

Proponents Are:	Thompson Recycling Centre
Date Approved:	November 21, 2001
Total Amount Approved:	$50,000.00
Total Amount Expended:	$50,000.00

Summary:

A grant of $50,000.00 was approved for the expansion of the Thompson Recycling Centre, which was destroyed by fire in 2001. Expansion of the centre is required to accommodate the involvement of other northern communities involved in the Northern Regional Waste Management pilot project. Because expansion costs exceed the replacement insurance, additional funding is required for the purchase of new equipment that will increase recycling efficiency and ultimately lower operating costs.

NORTHERN SCRAP METAL RECYCLING

Proponents Are:	Manitoba Aboriginal and Northern Affairs
Date Approved:	January 29, 2002
Total Amount Approved:	$18,860.00
Total Amount Expended:	$18,860.00

Summary:

A grant of $18,860.00 was approved to evaluate the feasibility of implementing a pilot project to demonstrate the viability of recycling scrap metal from remote northern communities. The information gathered from Phase 1 of the project will be used to develop a budget and project details for Phase II of the demonstration project. Components of the project include the development and implementation of a collection and storage system, a compaction system and a system of transportation to end-markets. Public education will be included in the project, as well as the creation of new jobs and the training of personnel to fill these jobs. The four communities identified as part of the pilot study include Garden Hill First Nation, Gillam, Churchill and Rankin Inlet. Nunavut is co-funder of the project.

RECYCLING FACILITY EXPANSION

Proponents Are:	Eastman Recycling Services
Date Approved	January 29, 2002
Total Amount Approved:	$20,000.00
Total Amount Expended:	$20,000.00

Summary:

A grant of $20,000.00 was approved for the expansion of Eastman Recycling Services regional recycling facility to efficiently process the increasing volume of recycling materials they are receiving. Eastman Recycling Services is currently providing services to the area of southeastern Manitoba and has seen increases of up to 16% in volume of materials.

F2

REGIONAL RECYCLING – SECOND BALER

Proponents Are:	Environmental Options
Date Approved:	January 29, 2002
Total Amount Approved:	$8,000.00
Total Amount Expended:	$8,000.00

Summary:

A grant of $8,000.00 was approved to add a second baler to the Environmental Options Regional Recycling Facility. This is required because the old baler is no longer reliable and the efficiency of the facility will be greatly increased with the addition of a new one. This is important because of increasing amounts of recyclables being processed in the facility due to becoming a regional processing facility. In addition, shutdowns due to breakdowns will be prevented. Efficient service will help to encourage recycling and reduce costs.

REGIONAL WASTE MANAGEMENT FACILITY DEVELOPMENT

Proponents Are:	Rural Municipality of Thompson
Date Approved:	June 29, 2001
Total Amount Approved:	$25,000.00
Total Amount Expended:	$25,000.00

Summary:

A grant of $25,000.00 was approved to improve the current regional waste management system involving seven municipalities. The Rural Municipality of Thompson is in need of an operation plan and new operating procedures. The project will involve the development of an operation and maintenance plan for the landfill operation. The plan will include site layout and design, procedures for cell commissioning and decommissioning and general operations.

VILLAGE OF TREHERNE RECYCLING INITIATIVE

Proponents Are:	Village of Treherne
Date Approved	January 29, 2002
Total Amount Approved:	$5,800.00
Total Amount Expended:	$5,800.00

Summary:

A grant of $5,800.00 was approved to improve the existing recycling and composting program in the Village of Treherne. Program improvements include the purchase of blue boxes, implementation of curbside pickup and a bi-annual compost pickup where compost will be taken to the existing compost facility at the waste transfer station. Treherne will also purchase a glass crusher, so recycled glass may be used in community projects.

PROGRAM DEVELOPMENT

An allocation of $100,000.00 was approved for WRAPP program development in fiscal year 2001/02. A total of $76,884.76 was expended to support the following key projects.

NATIONAL WORKSHOP ON EXTENDED PRODUCER RESPONSIBILITY

Over March 6 – 8, 2002, Manitoba Conservation in partnership with Environment Canada hosted the 2nd National Workshop on Extended Producer Responsibility at the Hotel Fort Garry in Winnipeg, Manitoba. Other sponsors included the Manitoba Product Stewardship Corp. and Manitoba Association of Resource Recovery. Over 100 of they leading international authorities on EPR attended the workshop.

ECO-EFFICIENCY PROGRAM

In 2001, Manitoba Conservation supported the development and implementation of the *Manitoba Power Smart Eco-Efficiency Solutions Program*. The pilot program was designed to help to maximize industrial efficiency, while minimizing environmental impacts. Other partners in this project include Manitoba Hydro, the NRC/IRAP, Environment Canada, and Natural Resources Canada.

MUNICIPAL WASTE MANAGEMENT SURVEY

For the 2001/2002 fiscal year, a university student was hired through the STEP Program to assist with the administration of the WRAPP Fund and other department activities. The student was also responsible for the delivery of a municipal composting and white goods recycling management survey and report.

WASTE FACILITY GUIDELINES

Manitoba Conservation contracted with KGS Consultants to help develop guidelines for the operation of waste disposal grounds, compost facilities, waste transfer stations.

NORTHERN WASTE MANAGEMENT COMMITTEE

Manitoba Conservation chaired the Northern Waste Management Committee established to review and make recommendations on northern waste management activities. The Committee also participated in the development of a regional recycling system in the Thompson Region.

GREEN PROCUREMENT INITIATIVE

Information dissemination on green procurement activities and a demonstration of green office technology was supported.

HOUSEHOLD HAZARDOUS WASTE REGULATION

An allocation was made towards development of public information material for the Household Hazardous Waste Management Program and Regulation development.

PROJECTS FROM PREVIOUS YEARS

WITH CARRYOVER AUTHORITY

IN THE 2001/2002 FISCAL YEAR

Number of Projects: 10

Total Expended: $123,786.58

Project Name	Total Expended
ECOSYSTEM CONSERVATION	
Manitoba Zebra Mussel Activities	$13,305.52
ENVIRONMENTAL TECHNOLOGY INNOVATION AND DEMONSTRATION	
Design Rubber Mats From Recycled Tires and Demonstrate in Northern Manitoba	$8,146.00
SUSTAINABLE AGRICULTURAL PRACTICES	
Grande-Clairiere Irrigation Project	$0.00
Soil Sustainability Study – Livestock Stewardship Initiative	$63,096.01
SUSTAINABLE COMMUNITY DEVELOPMENT	
Trail Coordinator for the Establishment/Completion of the Manitoba Portion of the TransCanada Trail	$17,198.80
UNDERSTANDING OUR ENVIRONMENT	
Draft Strategy for the Development of the Provincial Sustainability Indicators and Year 2000 Interim Sustainability Report	$3,320.15
Manitoba Science Fair Sustainable Development Award	$400.00
Petroleum Storage Tank Program	$3,320.10
Showcasing Manitoba's Technology	$0.00
WATER	
Boyne River Revitalization and Walkway Project	$15,000.00

DETAILED LISTING OF PROJECTS

FROM PREVIOUS YEARS WITH CARRYOVER AUTHORITY

IN THE 2001/2002 FISCAL YEAR

Projects listed below are those that were initially allocated funding from the Sustainable Development Innovations Fund in previous fiscal years, but had carryover authority for the 2001/2002 fiscal year. Project descriptions have been provided in previous Annual Reports.

ECOSYSTEM CONSERVATION

MANITOBA ZEBRA MUSSEL ACTIVITIES

Proponents Are:	Manitoba Conservation
Date Approved:	May 30, 2000
2001/02 Expenditures:	$13,305.52

ENVIRONMENTAL TECHNOLOGY INNOVATION AND DEMONSTRATION

DESIGN RUBBER MATS FROM RECYCLED TIRES AND DEMONSTRATE IN NORTHERN MANITOBA

Proponents Are:	MATCAN (Harvey Wasiuta, Jeff Ross, Ashley Leibl)
Date Approved:	July 13, 1999
2001/02 Expenditures:	$8,146.00

SUSTAINABLE AGRICULTURAL PRACTICES

GRANDE-CLAIRIERE IRRIGATION PROJECT

Proponents Are:	Souris Valley Irrigation Centre
Date Approved:	March 12, 1998
2001/02 Expenditures:	$ 0.00

SOIL SUSTAINABILITY STUDY – LIVESTOCK STEWARDSHIP INITIATIVE

Proponents Are:	Manitoba Conservation
Date Approved:	December 19, 2000
2001/02 Expenditures:	$63,096.01
Total Amount Projected:	$47,493.10 (2002/2003)

SUSTAINABLE COMMUNITY DEVELOPMENT

TRAIL COORDINATOR FOR THE ESTABLISHMENT/COMPLETION OF THE MANITOBA PORTION OF THE TRANSCANADA TRAIL

Proponents Are:	Manitoba Culture, Heritage and Tourism
Date Approved:	October 28, 1998
2001/02 Expenditures:	$17,198.80

UNDERSTANDING OUR ENVIRONMENT

DRAFT STRATEGY FOR THE DEVELOPMENT OF THE PROVINCIAL SUSTAINABILITY INDICATORS AND YEAR 2000 INTERIM SUSTAINABILITY REPORT

Proponents Are:	Manitoba Conservation
Date Approved:	June 10, 1998
2001/02 Expenditures:	$ 3,320.15
Total Amount Projected:	$62,793.08 (2002/2003 & beyond)

MANITOBA SCIENCE FAIR SUSTAINABLE DEVELOPMENT AWARD

Proponents Are:	Manitoba Conservation
Date Approved:	January 24, 1995
2001/02 Expenditures:	$ 400.00
Total Amount Projected:	$ 3,100.00 (2002/2003 & beyond)

PETROLEUM STORAGE TANK PROGRAM

Proponents Are:	Manitoba Conservation
Date Approved:	April 21, 1994
2001/02 Expenditures:	$ 3,320.10
Total Amount Projected:	$ 29,708.43 (2002/2003)

SHOWCASING MANITOBA'S TECHNOLOGY

Proponents Are:	Great Plains Initiative
Date Approved:	May 20, 1993
2001/02 Expenditures:	$ 0.00

WATER

BOYNE RIVER REVITALIZATION AND WALKWAY PROJECT

Proponents Are:	Boyne Valley Trails Committee
Date Approved:	June 9, 2000
2001/02 Expenditures:	$15,000.00

APPENDIX I

Sustainable Development Innovations Fund
Five Year Expenditure Summary ($000)
for years ending March 31, 1998 - March 31, 2002

APPROPRIATION	Actual/*Adjusted Expenditures				
	1997/98	1998/99	1999/00	2000/01	2001/02
Sustainable Development Innovations Fund	2,415.4	2,784.1	1,633.9	2,073.3	2,865.8
Total	2,415.4	2,784.1	1,633.9	2,073.3	2,865.8

* Adjusted figures reflect historical data on a comparable basis in those appropriations affected by a re-organization during the years under review